IMAFEST 2020

21st Annual Conference of IMA Dombivli

Celebrating Healthcare and Humanity

SOUVENIR

Dr. Archana Pate (Advisor) | **Dr. Suchitra Kamath** (Editor) | **Dr. Ashwini Dharmadhikari** (Co-Editor)

Dr. Nayana Chaudhari | **Dr. Anjali Vaidya**

CONTENTS

IMA DOMBIVLI

Office Address : IMA Hall, 2nd Floor, Deep Shikha Society, Opp. CKP Hall, Dombivli (E).
Webiste : www.imadombivli.com **Email :** imadbl2010@gmail.com **Mobile :** 9136105757

IMA DOMBIVLI

50TH YEAR

CELEBRATING GOLDEN JUBILEE YEAR

ORGANISING TEAM :
IMAFEST 2020

EDITORIAL

Dr. Suchitra Kamath

Souvenir is a memento, a Bouquet of memories of the years gone by.

Bringing out a souvenir on the Golden Jubilee year of IMA Dombivili needed extra efforts as it marked a' Special occasion.'

50 th year means 50 years of hard work.

50th year means 50 Presidents sharing memories, hardships and glories, all resulting in the present state of IMA Dombivili ,which is throbbing with activity and dynamism, that IMA branch which has grown and produced leaders serving at National Level. One can never forget the works of pioneer Presidents and the efforts they took to nurture the then fledging branch of IMA.

I and my Team consisting of Dr Nayana, Dr Anjali, Dr Ashwini have tried to collect the memories of few of these wise people who have tried in whatever way to recollect and share it with us their memories and experiences.

Dombivili is unique in the sense that we reside in the place of much historical significance not many of us do not realize .So I have made an effort to ask a Historian to add an article on Dombivili. This will make us proud of our town.

Our IMA doctors have not only excelled in their profession but few have gone out of box and done exemplary work for welfare of the citizens of Dombivili. A small tribute to few of these doctors.

Presently, we are facing Pandemic and I have added contemporary understanding of the Covid in this souvenir.

While handling such diverse activities in few days ,reading about memories, exemplary works, I have learnt few lessons. I found them similar to 'Everyday Lessons from Bhagwat Gita'. As we all know, Bhagwat Gita was a discourse that took place between Lord Krishna and Arjuna before the start of the war. These teachings changed Arjuna's perceptive about life and life paths. Even today they serve as 'Timeless Guide.'

Life Lessons learnt are -

1) **Developing Right Perceptive -** Perceiving the things in right way plays a critical role in helping, understanding what we should do and why we should it. It helps in shaping our attitude for the welfare of the branch.

2) **Practice tolerance and Forgiveness -** Both qualities are necessary to maintain and nurture relationship within the members of the branch.

3) **Staying Calm -** In event of untoward incident, violence, how to stay calm ,control your impulses , protecting your members and channelizing your energies for the welfare of your members .

4) **Work for welfare of your members -** Thinking that IMA members are one Family and conducting activities for their welfare and benefits.

5) **Being Fearless -** Fear is a emotion that arises out of lack of knowledge and inability to manage it. Efforts to improve knowledge through CME, publications, talks ,self help workshops, for benefit of the members.

6) **Understanding that Change is law of nature and Nothing is permanent** is seeing each year, one President handing over the baton to the new one .The older one being a 'Guide' to the newer ones helping them in adapting to situations, coming up with solutions .

7) **Dreaming Big-** Most remarkable achievements that those of someone dreaming big and working hard to make those Dreams come true. The awards and achievements of our IMA branch and its members are part of this Dream.

'Coming Together is beginning,
Keeping together is progress,
Working together is success.'

Suchitra Kamath

PRESIDENT'S ADDRESS

Dr. Sunit Upasani

Success is the sum of small efforts, repeated day in and day out.

And since the day IMA Dombivli was established in the year 1969, all the past presidents and all the teams of IMA Dombivli have put in the efforts, to build our branch and taken it to the height where it is recognised all over. Though I consider myself absolutely lucky to be at the helm of our branch in its glorious golden jubilee year, I humbly follow the golden foot steps of all the past presidents which have left the imprints in sands of time.

As a continuation of celebration of our golden jubilee year, Team IMA Dombivli had made a lot of plans for the grand celebrations during our 21st annual conference IMAFEST 2020.But as a pandemic has hit the entire world, all the plans and celebrations have come to a standstill.

But, we, the members of our team believe in the courageous words of our beloved past president of India, Bharatratna Late Dr. A.P.J.Kalam. He has said, "Difficulties in your life do not come to destroy you. But to help you realise your hidden potential. Let difficulties know that you too are difficult to destroy."

So ,we have made this difficult pandemic into an opportunity to conduct a really grand conference, 21st Annual conference of IMA Dombivli IMAFEST and 1st IMA MS Cultural conference NAVRANG, hosted by IMA Dombivli. Though this year we are going to have a virtual conference, we are not leaving any stone unturned to make it as elaborate as always.

And as a president I am immensely proud of the Team IMA Dombivli, who with continued guidance from Patron Dr. Mangesh Pate and advisory committee are following the principle of, "Teamwork means, Divide the Task and Multiply the Success. "Each and every member has taken up an individual responsibility of a task and is doing the best of their ability to make these events a huge success.

Team IMAFEST has a superb scientific sessions lined up. It will be a mixed bag of lectures from world renowned speakers .

Team NAVRANG has cultural events to lighten up the gloomy atmosphere of Covid. We are going to celebrate a grand cultural extravaganza spread over 3 days in presence of state and national IMA dignitaries.

Dr. U. Prabhakar Rao oration which is a much awaited event because of the stalwarts from the fraternity who are our orators. And in this current pandemic, who could have been the better guiding orator than the Ex-head scientist and epidemiologist of ICMR, Padmashri Hon. Dr. Raman Gangakhedkar Sir.

We ,the members of IMA Dombivli are always committed to our responsibility towards community by our various community awareness programmes. But we are equally committed towards the wellbeing of our own members and we stand for and fight for the rights of our members.

So my dear friends and colleagues of my branch, lets continue our golden journey together in the future wherein we will leave behind the footprints for our successors to follow.

Thanking each and every one of you with folded hands, face of the branch Dr.Sunit Upasani, President, IMA Dombivli.

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MESSAGE FROM NATIONAL LEVEL DIGNITARY

Dr. Mangesh Pate

It is yet another moment of pride for me to see my own IMA Dombivli branch excelling again in it's annual event.

Celebrating 50th golden jubilee year is a milestone for the branch. The history of 50 years has seen many seniors, stalwarts serving the esteemed organisation, IMA, through Dombivli branch. My heartfelt respect and gratitude to all seniors! What we are today is the blessing from our seniors. We hold responsibility to carry forward their great work.

IMA always fights for what is right. We always set the vision of righteous & safe interests of our profession.

IMA leadership has taught us righteousness, ethicality & statesmanship. These three principles definitely warrant to be safeguarded. Our profession too distinctly commands the same principles.

I congratulate all Presidents, Hon. Secretaries, all Office bearers, all Past Presidents, Managing Committee members & every member of this esteemed branch on the occasion of 50th golden jubilee year. We have a bright future with the emerging young leadership in the branch.

While I function across the country, you all in my own branch are my inspiration, my force & my power. I stand indebted to you all for all love, care & support given to me!

I applaud each member for the fearless & selfless services towards mankind during COVID pandemic against all odds.

I wish every success to IMAFEST & NAVRANG.

Long Live IMA

Dr Mangesh Pate

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MESSAGE FROM NATIONAL LEVEL DIGNITARY

Dr. Archana Pate

It's an immense feeling of pride to see IMA Dombivli in it's Golden Jubilee year. 50 years of excellent work, 50 years of service to the society, 50 years of wonderful camaraderie and 50 years of being together in each other's happiness and in times of need! No wonder IMA Dombivli is such a wonderful big family!

IMA Dombivli has climbed ladders of success year after year and is now well recognized as one of the most dynamic and vibrant branch with State and National IMA with our stalwarts working at National and State level, with multiples of State and National awards in the kitty and having successfully organized multiple state and National level conferences year after year – Vibrance (2015), Evecon (2016), Idicon (2017), Mahahospicon (2018) and now Navrang this year (2020). The community service programs done consistently by IMA Dombivli are well appreciated and work done by IMA Dombivli during the toughest of all phases – the Covid Times – has been appreciated by KDMC on multiple forums!

The sole reason for the success of branch is excellent team work. Only place where success comes before work, is in the dictionary. Everyone comes with a unique set of talent and when these talents come together, magic is created. Everyone contributes to smallest of things, with great love & passion and this has helped in nurturing the branch to the level at which it stands tall today! A sincere thanks and gratitude to all senior leaders, all Past Presidents, Managing Committee members & every member of our branch who has contributed to the success of the branch! A big applause to IMA Dombivli for it's glorious journey of 50 years!

IMA Dombivli's 21st Annual Conference IMAFEST once again comes up with excellent, interesting and practical scientific topics! I am witness to the hard work put in by the scientific team year after year! The 1st Annual Cultural Conference of IMA Maharashtra State which IMA Dombivli is hosting this year along with its 3rd Annual Cultural Festival, NAVRANG 2020 is going to be a cultural treat! I'm sure everyone will enjoy these unique online scientific and cultural events as much as the organizers enjoyed putting it all together! Best wishes for the success of IMAFEST & NAVRANG 2020.

Dr. Sunit Upasani is leading the branch in it's Golden Jubilee year in such crucial times with much needed wisdom and vision... best wishes to Dr Sunit and the entire team! Really look forward to normalcy coming back soon, so that everyone can meet and greet in person! Till then, let's make it up for the lost time as best as we can!

Long Live IMA...

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Golden Footprints
in the sand of time

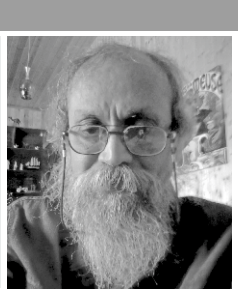
OUR PRESIDENTS TILL DATE

NO.	PAST PRESIDENTS	YEAR
1	Dr. K. N. Varde	1971-72
2	Dr. S. G. Pimpalkhare	1972-73
3	Dr. U. P. Rao	1973-74
4	Dr. M. M. Navare	1974-75
5	Dr. V. M. Tannu	1975-76
6	Dr. Mrs Tanksale	1976-77
7	Dr. V. A. Kelkar	1977-78
8	Dr. S. V. Adkar	1978-79
9	Dr. C. S. Patawardhan	1979-80
10	Dr. D. R. Pophale	1980-81
11	Dr. D. T. Manunur	1981-82
12	Dr. S. K. Juvale	1982-83
13	Dr. S. G. Ghotikar	1983-84
14	Dr. G. V. Kulkarni	1984-85
15	Dr. S. N. Phanse	1985-86
16	Dr. S. S. Gadkari	1986-87
17	Dr. V. S. Dhondye	1987- 88
18	Dr. Ulhas Kolhatkar	1988-89
19	Dr. N. P. Patange	1989-90
20	Dr. Anand Hardikar	1990-91
21	Dr. Sunil Puntambekar	1991-92
22	Dr. Dilip Patil	1992-93
23	Dr. S. N. Korrane	1993-94
24	Dr. Sanjay Deshpande	1994-95
25	Dr. Vijay Aage	1995-96

NO.	PAST PRESIDENTS	YEAR
26	Dr. Praveen Savant	1996-97
27	Dr. Shrirang Phansalkar	1997-98
28	Dr. Madhav Baitule	1998-99
29	Dr. Anil Chaudhari	1999-20
30	Dr. Dilip Joshi	2000-01
31	Dr. Yogesh Acharya	2001-02
32	Dr. Ajit Oak	2002-03
33	Dr. Arun Patil	2003-04
34	Dr. Shrirang Abhyankar	2004-05
35	Dr. Pramod Bahekar	2005-06
36	Dr. Adwait Padhye	2006-07
37	Dr. Unmesh Phadnis	2007-08
38	Dr. A. A. Rode	2008-09
39	Dr. Makarand Ganpule	2009-10
40	Dr. Prashant Kelkar	2010-11
41	Dr. Vitthal Kuchekar	2011-12
42	Dr. Shrikant Harne	2012-13
43	Dr. Swati Gadgil	2013-14
44	Dr. Leena Lokras	2014-15
45	Dr. Mangesh Pate	2015-16
46	Dr. Hemraj Ingale	2016-17
47	Dr. Niti Upasani	2017-18
48	Dr. Archana Pate	2018-19
49	Dr. Meena Pruthi	2019-20

LOOKING BACK

Dr. Shyamkant C. Ghotikar
President : 1983 - 84



The IMA (Dombivli) was instituted in 1971 - by those senior & restless Doctor Colleagues - to constitute the Doctors' Collective - for the first time - in the small town that Dombivli was then. Dr K. N. Varde was the first President.

It was started off with the zeal to do something tangible - for the Doctor Community - & to bring the Collective under the auspices of the Parent IMA.

The Leadership was shouldered by many senior & able colleagues - over the years that are history now.

I'd started my practice here - in 1978. And being a social being - felt the need to join a worthwhile group of our Professional Colleagues .It was in 1980 that I joined the fold of IMA , when Dr D.R. Pophale had been the President .

Soon, I climbed the rungs in hierarchy to lead the Collective (1983- 84) - inherited the post from Dr S. K. Juvale (1982 - 83).

Now, the IMA Souvenir Committee suggested that I write a short account - of my tenure as the President - I could see a formidable task into it - as what is expected of me - was over - long back ..! (We do have a chronicler ' Dialogue ' now - which was launched in 1988..!). So, the earlier records were confined to memory only !

As I reminisce now, I (supported by my Team then) was an amateur & novice (may be - am one - even now !), But with the Team - was raring to do a lot of meaningful activities..

Our Office was housed at the 'DeepShikha' bldg. (It's still there) - which was brought about into reality - by individual contributions (monetary - & otherwise) by few of our senior colleagues .

In my given time - we conducted regular monthly meetings - mostly on Academic Topics - attended by 25 to 40 members . Then , we did have a yearly Family Gathering - aimed at Camaraderie & Relaxation & variety entertainment do' s . A day would be devoted to Sports & Games - out door - as well as indoor - held at some School Grounds .

We could (& had to !) do all these - against many odds .. Those days - we had no cellphones . The only means of communication was the good ole' landline. So, to invite Guests from out of town - would consume a lot of time - & personal efforts. Communication was not easy - as it is of now.

When asked - what do I recount of those days - I can only say - I - like my predecessors - with my Team - embodied a Prototype Convenor - of the potential Emerging Force : We tried to contribute to building the Association more meaningful & more close-knit. The credit must deservedly go to the whole Team - of the year.

As I see, this Association of our's - as on today - is managed by very able , hardworking, & dedicated colleagues - having imagination, drive , initiative & readiness to undertake many ambitious ventures ..

Our worthy successors did bring in reality - projects - like : IMA Library, Medical Directory, 'Aao Gaon Chale Abhiyan', Afternoon Clinical Meetings, and the most noteworthy - the 'Dialogue' - you are reading now.

In summing up, I can only think aloud - that I'd been a small cog - in the big wheel - of the great Association - that started small - like any other - and has evolved to its most spectacular homeostasis of now.

Long live the IMA...

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MEMORIES AS IMA PRESIDENT

Dr. Sunil Gadkari
President : 1986 - 87

Truly speaking during early years of IMA activities were limited. During my term (Octo 1986 to Sept 1987) IMA & IDA jointly started project of Dombivli Medical Directory with major initiative & follow up by Dr Sunil Puntambekar & others, which was completed & published in August 1988 by the hands of Dr Jabbar Patel & Dr Ravi Bapat during the term of Dr Vijay Dhondyes presidentship. Also we used to have Wednesday monthly meetings with dinner on clinical & nonclinical subjects at IMA hall with usual attendance of 20 to 25 members. Also we had annual Gathering during that year with sports (Indoor& Outdoor) & cultural programs (used to have Picnic & Gathering alternate year). I also wish to mention two other projects of my colleagues. First Afternoon Clinical meeting started by Dr N P Pantange during his term 1989-1990 & second one Bimonthly Dialogue magazine started in Nov 1988 during Dr Ulhas Kolhatkar 's term under Editorship of Dr Shayam Ghotikar.

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ORGANIZATIONS, MINDS & PARACHUTES!

Dr. Ulhas Kolhatkar
President : 1988-89

Organization is nothing but collective action of Minds and Mind works at it's best when open! So organization is at it's best when open to thoughts, people & community at large!

...And that perhaps can be a correct description of the year when I was fortunate to lead our IMA Dombivli.

2nd decade of our organization can be described as consolidation decade, in terms of membership, programs & projects. We had published an 'IMA Directory' for Doctors & Community at large, in previous year and decided to open up further ....

We **stepped out of our small meeting hall**, and started conducting meetings at bigger halls, with larger audience and some extraordinary speakers (on Non-Medical topics!) like Shri.Arun Sadhu, Shri. Kumar Ketkar, Shri. Milind Gadgil etc. We joined hands with NGOs like Rotary; conducted **Mega Medical camps** in Tribal areas and villages (with patients turnover of more than 1000!). We activated **'Afternoon Clinical Meetings'** (C.M.E.s are Modern Avataras of those A.C.M.s!)

There were no cell phones, emails or social media at that time and there was a dire need of strong channel of communication between the members and so, '**Dialogue'** was conceptualized and launched. We were very fortunate to have an able, 'Master of Words' editor in Dr. Shyam Ghotikar and now I feel very much satisfied when I see, a really well grown '**Dialogue'**!

Needless to say, that a leader has to have a very good Team and wise counsel with him. Very aptly described by **Chanakya in Arthshastra** when he says 'चक्रम् एकम्न वर्तते' (A wheel does not turn alone!)

I had an excellent Team with me, to support and also wise counsel of Past Presidents.

I am sure all Presidents (Past, Present & Future) will echo my feelings!

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EXPERIENCE IN MY YEAR AS PRESIDENT

Dr. Sunil G. Puntambekar
President : 1991-92

Prologue : After passing M. D. in Anaesthesiology in 1985, I decided to start my practice in Dombivli & I was introduced first at the Annual IMA Gathering held at Agrawal Hall. I continued lecturer post at GSMC & KEM Hospital till May 1987, till receiving the telephone connection. Then we IMA & IDA jointly carried out the project of Dombivli Medical Directory & published it on 7th August 1988 with Dr. Jabbar Patel & Dr. Ravi Bapat. This helped gear up many an event.

21st Year of IMA - 1991-92 : Treasurer (1988), then Secretary(1989), Vice-President(1990) & then President (1991) this was the step ladder pattern followed in IMA, Dombivli then, which I feel was necessary to orient & train oneself working properly for organisation.

During this 21st year of IMA Dombivli, all old activities continued with addition of some new ones - Annual report, life membership & library

A) **AnuRIMA** : The first ever & only one Annual Report (12 Pages) "AnuRIMA" was published comprising of list of office-bearers, Secretary's report, Kaleidoscope, R & P account & Trail. Annual term was from 1st October to 30th September in those days. Life membership enrolment started in this year with 12 single & 3 couple life members, total strength increased from 187 to 221. We invested Rs. 23580/- in F. D. for the first time as Life Membership reserve fund.

B) **Monthly Meetings** : We held all regular 12 monthly meetings on the fourth Wednesday of every month, with dinner hosts' turn of our members. Out of 12, 6 were academic meetings : lectures by Drs. Suhas Haldipurkar, Shrikant Joshi, Prakash Kanse, Mukund Thatte, S. S. Dhage & Jayant Gokhale, while 5 were Extra-curricular : 2 family meets as *Manatali Morapise* & *Doordarshanchya Gamati Jamati*, Talk on Shaikshnik Aarogya, Debate on Consumer Protection Act & Talk on Swadeshi, lastly Annual GBM with the elections. **Annual Picnic** at Kelve beach was successfully organised in Jan 1992.

C) **Special Meetings** : 7 such meetings. 1) Dhanwantari Poojan in Nov. 1991 with IDA & MAS. 2) Special GBM on IMA Hall project in Dec. 1991. 3) Most memorable event "Diabetes Day" jointly with Aashraya in Feb. 1992 - Symposium with Drs. V. S. Ajgaonkar, Mehtalia & Mrs. Nihalani, special issue of Dialogue was released & inauguration of Aashraya Club & *Madhumeh – Samvad v prashnottare*: interview with Dr. Ajgaonkar for common people. 4) Meeting of IMA members with the State Branch office bearers in Feb. 1992. 5) Seminar on Update on newer Antibiotics in March 1992 – Dr. Mrs. Sharadini Dahanukar & others. 6) WHO Day celebration with the release of IMA/IDA Dombivli Medical Directory addenda (as telephone numbers changed from 4 digit to 6 digit). 35 fresh medical graduates were felicitated by Dr. Mrs. Snehalata Deshmukh. 7) Special joint meeting of IMA/IDA/MAS on investment planning & finance budget 92 by Shri. Chandrashekhar Tilak in April 1992.

D) **IMA Dombivli Bulletin "Dialogue"** : This bimonthly publication continued during its 4th year, also published an unique academic 'Diabetes Special' issue, thus total 7.

E) **Afternoon Clinical Meetings** : The most fruitful & popular activity continued in its 3rd year on 2nd Wednesday of every month with nearly 30 doctors presenting about 70 interesting & rare cases at a bigger venue – shifted from IMA Hall to Rotary Hall, Raghuvirnagar. These meetings were included with 'new drug profile' 'looking back' & academic videos'.

F) **Public Health Activities** : Various Child health, School Health camps, Family welfare camps & Paramedical training camp were organised. Rotary IMA medical centre for municipal school children was inaugurated.

G) **IMA Library** : This is new academic venture started this year, after renovating the IMA Hall. It was inaugurated on 5th August 1992 with Shri.

U. P. S. Madan & Dr. Girish Oak.

H) Intermedical one-act play competition : We entered first ever into this , staging a play "Hide & Seek", also bagged 2nd best actor prize to Dr. Bhumkar.

I) Assets : We purchased new equipment like – a collar mike & Photophone automatic slide projector, books, video cassettes etc. We also initiated computerising our office data.

J) The one Discord : We held special GBM to discuss the IMA Hall project. Lateron Secretary Dr. V. J. Thakurdesai resigned & then Dr. S. N. Koranne took over for the remaining year.

K) Future Plans : Patient Guidance Cell or *Rugna Sahayya Kendra* was planned with the inspiration of Dr. Shrikant Kothari's Vile Parle Medical Association's same project, but it did not succeed on the IMA platform. (Coincidentally similar activity was started as Anita Rugna Sahayya Kendra by another Trust in Feb. 2012 & continued so far.)

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‘THINGS END BUT MEMORIES LAST FOREVER’

Dr. Madhav Baitule
President : 1998-99

I was the President of IMA ,Dombivli in the year 1998-99.**Dr. Dilip Joshi** was honorary Secretary and **Dr. Rajiv Adhav** was the treasurer.In those days stalwarts like **Dr. Sunil Puntambekar, Dr. Anand Hardikar** , **Dr. Shyam Ghotikar** were the guiding force of IMA ,Dombivli.

Fixing the new board of IMA on our office building was our first project and that was the good start.

In the monthly Clinical Meetinng, we started written quiz with multiple choice questions on different topics and the expert in the subject used to set questionnaire and conduct the quiz. **Dr. ULhas Kolhatkar , Dr. Ajit Jambhekar** and other leading renowned consultants conducted these events for the whole year.

We use to have monthly CMEs. Tradition of Annual conference was yet to begin for IMA Dombivli . We included all disciplines of medicine as the theme , including Psychiatry, Radiology , PSM , Haematology and blood Banking and even Yoga. I remember veteran Physician **Late Dr. R M Bhat** attending one such meeting addressed by **Yogacharya Sadashiv Nimbalkar**.

In that year , we saw the broad daylight murder of our professional colleague and owner of Shridevi Hospital from Kalyan **Dr. Deepak Shetty** by gangsters.It was the most anxious and terrified moment for overall medical fraternity.There was an atmosphere of panic and terror. Some of our other colleagues were also receiving extortion calls .

We had a strike to show our solidarity towards family of **Dr. Deepak Shetty** and many others who were victims of this extortion threats.At that time Yuti of shivsena BJP was in power and Gangsters like Manchekar were very active in this part . We gave our representation to CM , HM and at all levels. Myself and **Dr.Ulhas Kolhatkar** attended the special meeting called by **Sharad Pawar** and gave our representation.With the help of **Dr. Arun Patil**, we had arranged one meeting for all members with DCP also. Eventually the atmosphere of threat and terror diluted somehow.

In that year we started working on **the trust of IMA** . At that time strength of IMA was around 200 It was decided to form the broad based trust so as to include other doctors also , to have all inclusive big venue for IMA in the town.It went well and the base line preparations were completed. But on the issue of inclusion of other organizations, process got delayed that year. Later, that Trust was created during tenure of **Dr. Ajit Oak** as the President. But unfortunately, it was dormant in years ahead. It is now being revived by **IPP Dr. Meena Pruthi** with able guidance of our mentor **Dr. Mangesh Pate** and it will be functional soon , I suppose.

In that year with the initiation of **Dr.Arun Patil** and with collaboration of Dombivli Police , we as a branch participated in mega medical camp with more than 5000 beneficiaries.

'Dialogue ' was at it's peak under experienced and proficient editorship of **Dr.Shyam Ghotikar** . 'Scanorama ' was very popular column in those days.

In an inaugural cultural event, today's leading composer and musician **Mithilesh Patankar** was interviewed by **Dr. Pramod Bejkar** . In the same event , Cricketer **Nilesh Kulkarni** was felicitated by our branch. We had a sportful,colourful and musical annual gathering that year.

Those were the days of very limited communication tools. Internet was not that popular.Social media was almost non existent. All the correspondence was through letters ,with door to door delivery.

Membership was limited.Attendence to CMEs and Clinical meetings also used to be meagre.There were no credit points to CMEs. There were very few sponsorships by pharmaceutical companies or corporate hospitals for body of mixed disciplines like IMA. Doctors didn't felt to become the member of IMA as assaults on Doctors by general public and injustice and extortion by civic and government bodies were not that common and were mostly fought on individual level.

At present , the situation is quite different. There is a need of unity and hence IMA is becoming more and more strong. It is taking clear stand against injustice and over handedness at all levels. Today we can see lot of vigor, dynamism, enthusiasm, participation and visionary leadership in IMA.

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'सुनहरी यादें'

Dr. Anil Chaudhari
President : 1999-2000

The year 1999-2000 most memorable year in my life! It was a great honor to be a president of such a prestigious organization- IMA Dombivli. It was a challenge for our team to do the best on a various projects already set by previous presidents and to implement new projects with innovative ideas for the betterment of our branch! I think we could stand upto it because of continuous efforts and guidance of our team members especially Dr. Yogesh Acharya, Dr. Ajit Oak, Dr. M. Baitule, Dr. Ashok Bhole, Dr. Ulhas Kolhatkar, Dr. Sunil Puntambekar, Dr. Shyam Ghotikar, Dr. G. V. Kulkarni, Dr. Pravin Savant, Dr. Subhash Gadgil and so on.....

I remember the year started with Inaugural function "मिले सुर मेरा तुम्हारा" followed by so many events throughout the year!

On academic front we arranged CME/ Conferences with good scientific contents, good speakers, good venue, good sponsorship & off course good fellowship! A unique CME was held on "Nuclear, Biological and Chemical warfare "in association with Civil Defense, Thane, importance of which is realized now to great extent.

We had update in cardiology, **"Cardiovision"** in which legends like Dr. P.V. Kale, Dr. Sushil Munshi, Dr. Yash Lokhandwala, Dr. Satish Vaidya guided us.

In **"Diabetes Update"** Dr. Shashank Joshi, Dr. Anil Bhoraskar, Dr. Nadeem Rias came to Dombivli which was like a dream for all of us. That era was of HIV-AIDS- **"World AIDS Day"** was celebrated by arranging AIDS exhibitions with posters, lectures, publication of patient information booklet "एड्स-तिसरे महायुद्ध" for awareness of AIDS in community. In association with Indian Academy Of Paediatric we could arrange a **"Paediatric CME"** from Dombivli to Karjat. As social media was not so much infiltrated that time, personal communication was required all the time throughout the year.

I recall **"Doctors Day"**celebration was a grand event at Sarvesh Hall with musical extravaganza "गंधार" by Hemant Barve from Mumbai featuring now famous artists - Ajit Parab, Neelakshi Pendharkar, Suchitra Bhagwat, Madhav Bhagwat.

It was immense pleasure to see overwhelming response of our members along with families and great fellowship! It was also a different experience of its own kind!

Annual gathering was colorful with sports activities and cultural events. I must mention that for music we did not keep competitions so that more and more members had opportunities to perform and healthy atmosphere was built.

"WHO Day -7th April" celebration under the able guidance of Dr. Sunil Puntambekar was unique in bringing four major organizations – Ayurveda/ NIMA/ Dental/ Homeopathy on one platform with a good interactions amongst all.

On this occasion "नाते रक्ताचे" was released by hands of Dr. B. C. Mehta and Dr. V. J. Ruparel.

"Dialogue" our bulletin changed the face little bit with good scientific contents, interviews, theatre reviews, poems etc.

With all good things happening, we have to struggle for water bill charges and we have to pursue the matter with the local body and state level.

In general when I look back to those "सुनहरी यादे" it gives me immense sense of satisfaction for having done somethings for my "IMA Family".

I salute to all my team, and all the members of IMA without whom, nothing would have been possible for me!

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IMA DOMBIVLI 2002-2003 KALEIDOSCOPE

Dr. Ajit Oak
President : 2002-03

We are into 50th Year of IMA Dombivli ,the YESTERYEARS are loaded with lots of foundation work, fruitful base building for establishing a steady structure of IMA Dombivli, we envisage today

I joined IMA wayback in August 1991,and since then till today the journey has been quite satisfying, it is a continuous learning process, it allowed me to develop myself into a better organiser and a communicator. I was fortunate to work under Dr U Prabhakar Rao, Dr Adkar, Dr Deodhar, Dr Thakur, Dr Arun Patil, Dr Juwale Dr Gadkari, Dr Patange, Dr Kolhatkar, Dr Jambhekar and not to forget to mention TWO PILLARS OF IMA Dr Puntambekar and Dr Hardikar. All of them have different facets and I learnt a lot from EACH of them, they are amongst the many stars of GALAXY called IMA Dombivli.

My team for 2002-2003 consisted of Dr Adwait Padhye as Secretary, Dr Arun Patil as President Elect, Dr Shreerang Abhyankar as Vice President, Dr Madhav Baitule as Dialogue Editor.

The opening was with WHO Day celebration on 7th April 2002, we felicitated the newly graduated Medical Students from all Pathies, the WHO Slogan was “AGITO MUNDO” MOVE FOR HEALTH", Dr Samasi, from KEM Hospital, official Physio Coach of India Cricket Team then was Guest Of Honour. We published a small booklet “आरोग्य तिथे वास करी” edited by Dr Kolhatkar, the book highlighting various aspect of healthy Mind, Body, Behaviour, Thinking, Emotions, Nutrition.

The installation of a new team happened at Brahman Sabha hall, the guest of honour was a noted Marathi Stage Actor Dr Girish Oak, it was just a coincidence that Oak was swearing in the presence of another Oak.

Adwait and me was a well balanced combination, we used to have one afternoon clinical meet at Gymkhana with case presentation on 2nd or 3rd Wednesday noon, every 2 months we used to have CME at the same place. We had blood donation camp on 1st July at Sutikalaya, 45 blood units were collected. In the month of August we had a cultural event during the rainy season "Ghana Garaje" it was full of music, one act plays, fancy dress competition, solo performances and a Orchestra by noted singer Hrushikesh Kanekar and his team at Brahman Sabha Hall In the month of November we had our 3rd Annual Mega CME on Critical Care MEDICON 2002, IT WAS UNIQUE in the sense that for the first time we had pre conference critical care workshop on 23rd November aimed to learn basic and advanced life support, neonatal resuscitation, care for critically ill patients under the able guidance of Dr J V Divatia, Dr Banjan, Dr Ashit Hegade, Dr P.K Jain, Dr Jayashree Mondkar, Dr Ruchi Nanawati, Dr Binoy, Dr Sheila Mathai focused on airway management, hemodynamic monitoring, vascular acess, AMI, cardiac emergencies, septic shop, perioperative confusional states in ICU, poisoning. It was a real feast for academicians and practicing doctors,we had almost 400 plus registrations. The 24th November was main conference at M.D.Thakur hall with a galaxy of speakers lik Dr Avinash Supe, Dr Pravin Mhatre, Dr Ram Chadda, Dr Rajiv Karnik, Dr Vikram Lele, Raghavendra Sabnis. The cultural event was at Kamba Village Titwala, we had two bus catering transport, it was full of fun, frolic and relaxation. The Chairperson for the conference was none other than Dr Yogesh Acharya Sir.

Throughout the year we had very good support from one of our close associates, Late Shree Dilip Khanzode from Aventis, he was like a IMA Family member, a silent figure behind all events without any advertisement, we miss him a lot.

During the mandatory overs of my innings IMA trust was formed and we had decided to come out with IMA HALL on our own land, the plan could not roll in during subsequent years, now last 2 years it has taken some momentum. We had a net profit of almost 2.5 lacs in that year and more than at we developed new fellowships. As we approached March 2003, it was time to hand over the baton to Dr Adwait to carry forward this IMA CHARIOT with full swing, and he did so.

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काळ अध्यक्षपदाचा

डॉ. अद्वैत पाध्ये
President : 2006-07

मागच्या आठवड्यात डॉ. नयना चौधरी यांचा फोन आला की आय.एम.ए., डोंबिवलीच्या सुवर्णमहोत्सवी वर्षानिमित्त प्रत्येक माजी अध्यक्षाकडून त्यांच्या कार्यवर्षा विषयी लेख मागवत आहोत. तसा तुम्हाला पण द्यायचा आहे. म्हणजे आयएमए डोंबिवली शाखेचा जन्म हा चक्क अस्मादिकांच्या जन्माचाही दोन वर्षे आधीचा आणि या शाखेसाठी मी सचिव, उपाध्यक्ष, अध्यक्ष व नंतर डायलॉगचा संपादक या नात्याने काही वर्षे काम केले आहे हे आठवून माझा मलाच अभिमान वाटला !

माझ्या अध्यक्षपदाचा काळ १४ वर्षांपूर्वीचा. स्मार्टफोनच्या आधीचा काळ. मला अध्यक्षपद स्वीकारताना आधीचे अध्यक्ष डॉ. प्रमोद बाहेकर यांनी लॅपटॉप दिला होता. त्याचा उपयोग मला माझ्या वर्षात करायचा होता. मग ठरवले की सदस्यांची लिस्ट / यादी सर्व संगणीकृत करायची (Computerized) आजीवन सदस्य व वार्षिक सदस्य या पद्धतीने आणि त्या काळी अवघड वाटणारे (जणू शिवधनुष्यच !) हे काम माझ्या अध्यक्षपदाच्या काळात पूर्णत्वास गेले. अर्थात याचे मुख्य श्रेय डॉ. सुनील पुणतांबेकर सरांना जाते !

आत्तापर्यंत आय.एम.ए.चे कार्य डॉक्टरांपुरते मर्यादित होते. ते लोकाभिमुख करायचे ठरविले व त्यासाठी आयएमए तर्फे गाव चलो अभियान सुरु केले. मलंगगडाजवळील (पायथ्याशी) असलेल्या आदिवासी खेड्यात दर महिन्यात एकदा टीम घेऊन जायचे ठरले. त्याकाळी ना सोशलमिडिया होता ना आपले सदस्य टेकसॅव्ही झाले होते. त्यामुळे फोन करुन आठवण करणे. एका ठिकाणी एकत्र जमून त्यागावी दुपारी जाणे, तपासणी व उपचार करणे, आरोग्यविषयावर त्यांना माहिती देऊन त्यांच्यात जागृती निर्माण करण्याचा प्रयत्न करणे आदी गोष्टी आपल्या सदस्यांनी उत्साहाने भाग घेऊन मनापासून केल्या. म्हटले तर ती छोटी पिकनीक असायची. गप्पा व्हायच्या जाता-येता आणि समाजाप्रतीचे आपले ऋणही फेडले जायचे ! या माझ्या अभियानाचा माझ्या स्वतःच्या विकासासाठी पण उपयोग झाला व त्यातूनच माझ्या मनात मानसिक आरोग्याच्या जनजागृतीची मुहूर्तमेढ रोवली गेली असे म्हणायला हरकत नाही !

माझ्या नंतरच्या काळात हे अभियान बंद होते. पण काही वर्षांपासून मिशन पिंक हेल्थच्या जोडीने पुन्हा ते सुरु झाले आहे याचा आनंद आहे !

माझ्या अध्यक्षपदाच्या काळात प्रथमच वार्षिक परिषदेचे स्थळ आम्ही बदलले. हेरिटेज हॉल व लॉनवर प्रथम मोठ्या शानदार पद्धतीने परिषद पार पाडून शकलो. अर्थातच डॉ. विजय आगे यांच्या कुशल नेतृत्त्वामुळेच ! डॉ. संजय ओक यांच्या हस्ते उद्घाटन, आमच्या (माझ्या) शाखेतील ज्येष्ठ डॉ. हरीश शेट्टी यांना प्रथमच बोलविण्याचे भाग्य लाभले.

नेहमीच्या सांस्कृतिक कार्यक्रमांऐवजी "नच बलिये" स्पर्धा घेण्यात आली. बाहेरुन परिक्षक आले होते नृत्यक्षेत्रातील ! आत्ताचे अध्यक्ष त्यावेळेचे विजेते होते ! हा एक आगळावेगळा कार्यक्रम ठरला.

सुदैवाने माझ्या अध्यक्षपदाचा काळ हा डॉक्टरांवरील अविश्वास, हल्ले या पूर्वीचा काळ होता. त्यादृष्टीने विचार करता वर्ष सौहार्द व शांततेत गेले. आत्ता सोशलमिडीयावरुन जो सतत पाठपुरावा करता येतो तशी सुविधा नसून पण माझ्या कार्यकाळातील सर्व कार्यक्रम, बहुतांशी यशस्वीपणे पार पाडू शकलो, याविषयी समाधान वाटते ! काही वेगळ्या गोष्टी करु शकलो (अर्थातच संपूर्ण टीमच्या मदतीने) याचा अभिमानही आहे !

सुवर्णमहोत्सवी वर्षानिमित्त आयएमए डोंबिवलीला पुढील वाटचालीसाठी शुभेच्छा ! जय आयएमए !

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‘THINGS END BUT MEMORIES LAST FOREVER’

Dr. Shrikant Harne
President : 2012-13

Warm Regards to everybody first of all I express my heartfelt gratitude to all members of IMA who chosen me president of such August Gathering of wonderful people. Dr Rode inspired me to become president as I was not having any experience in past of giving speech, which is my weakness, but he told you just become I will do everything. Dr Bahekar also inspired me. My close associate And office bearers Dr Rahul Mahadar and Dr Rahul Karandikar were my most loving, caring and guiding friends to whom I am always obliged, In nutshell. We started many new things, we renovated our office and made nice furniture, which was pending since long time...,we celebrated our IMAFEST, and also managed to take picnic monsoon trip to Bhandardara, It was great and nice lifelong memory of IMA Dombivli...

Long live IMA Dombivli.

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MEMORIES ARE TIMELESS TREASURES OF THE HEART

Dr Leena Lokras
IMA Dombivli (2014-15)

Taking up the leadership position in Indian Medical Association one of the most prestigious professional organization is a huge challenge. For me, the thought had never ever even remotely crossed my mind. But as is said, destiny has its own way. Unfortunately for our organization, the President Elect conveyed his inability to take up the responsibility. Some members approached and convinced me to get into the shoes of the President of our branch. So you can say I just was like wild card entry. My involvement till then was limited to attending conferences. PP Dr Makarand Ganpule and PP Dr Swati Gadgil involved me in some way in their conferences. And so, I can say that I was a complete novice to the working system of IMA Dombivli.

The year began on a very auspicious day of Gudi Padwa. I started learning the ropes and must say that Dr Makarand, Dr Mangesh Pate, Dr Hemraj Ingale, Dr Utkarsh Bhingare, Dr Niti Upasani, Dr Hardikar, Dr Puntambekar, Dr Dilip Joshi, Dr Ulhas Kolhatkar supported me in every which way. It was important to consolidate the members at that point of time. To bring together the experience of senior members and the new ideas of the young members. I suppose I achieved that, because since then our branch has grown by leaps and bounds.

We started the **afternoon Clinical Meetings** which were welcomed and members participated enthusiastically. The projects and CMEs were few but we enjoyed the planning and execution and we all bonded together like a family. The afternoon lunch **CME** were appreciated and the numbers started swelling with each program. Slowly, by the time of Annual Conference, many more members started involving themselves and we had a jam packed hall with a wonderful inaugural video on **MEDICAL MARVELS.** The delegates happily left the conference with a mug having a photograph printed and a book on Medical Marvels. I am sure most of them still have that. That was the first time when we also organized a special gallery for exhibiting the history of Medical Marvels. Thanks to Dr Preeti Nanda, the food was always plenty and exciting to the taste buds. Icing on the cake was the performance by the "Radha he bawari" fame – **Swapnil Bandodkar**. The program was organized by DR Niteen and Dr Sangita Dandekar. Cannot thank them enough for sponsoring the whole show.

The **Dandiya program** was a fun filled hit. We all lady members actually had a practice session!!!

Even for the **Annual Function** was a memorable one with enthusiastic participation from members and the children. I still remember the Gabbar act of Junior Pate, cute fairy of the princess of Swapna and Rajesh Muley, hilarious dance presentation by Dr Upasani couple and Dr Kala, Geeta Joshi..... so many more. Inspite of me having two left feet, the team dragged me into a dance!!!

Since the time I took over as President to handing over the charge to Dr Mangesh, it was a beautiful journey which has given me timeless memories. I always smile looking back at that year.

A journey is best measured in friends, not in miles. I am happy that I made friends on the way, which have lasted all these years. We may have had differences of opinion but all of us are mature enough to rise above those. Sometimes even though you are having a good time, you can't help but to stop and think about how much you miss the old times. I have enjoyed being part of the subsequent teams in Conferences.

I am proud that the expertise and incredible skills of our members is recognized not only at State, but also at National level and they are given the opportunity to serve from those platforms. They are the jewels in the crown of our branch.

Friends, Memories take us back and dreams take us forward. We may bask into the warm memories but it is the dreams of the younger members to take our branch forward and set new standards. Its heartening to see the young and talented members with new and different ideas, getting involved in the activities.

I wish IMA Dombivli all the very best and a bright future.

Warm Regards
PP DR Leena Lokras

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GOLDEN FEATHER IN THE CAP

STATE & NATIONAL IMA AWARDS FOR IMA DOMBIVLI

MASTACON 2015

IMA MS President's Appreciation Award for VIBRANCE (National Conference of IMA HBI) – Dr. Mangesh Pate

NATCON 2015

1. Best branch Subchapter under IMA Hospital Board of India – IMA Dombivli
2. IMA National President's Appreciation Award – Dr. Mangesh Pate for VIBRANCE

MASTACON 2016

1. IMA MS President's Appreciation Award for Evecon 2015 – 16 (IMA MS conference of Women Doctor's wing) – IMA Dombivli
2. IMA MS President's Special Felicitation Award – Dr. Archana Pate for work done in IMA MS Women Doctor's wing

MASTACON 2017

IMA MS President's Appreciation Award – Dr. Niti Upasani

MASTACON 2018

1. President's Appreciation award - Dr. Mangesh Pate
2. President's Appreciation award - Dr. Archana Pate
3. President's Appreciation award - Dr. Meena Pruthi
4. President's Appreciation award - Dr. Niti Upasani

NATCON 2018

1. IMA Active National Office Bearer – Dr. Mangesh Pate
2. IMA National President's Appreciation Award – Dr. Mangesh Pate
3. IMA Diamond Jubilee IDPL Award – Dr. Mangesh Pate
4. Dr. A.K.N. Sinha Oration Award – Dr. Archana Pate
5. Dr. A.P.Shukla Memorial Award – Dr. Meena Pruthi

MASTACON 2019

1. IMA MS Best President award for Medium Branch for year 2018 -19 – Dr Archana Pate
2. IMA MS President's Appreciation award for MahaHospicon 2018

NATCON 2019

1. IMA Dr P.C.Bhatla Oration Award - Dr Mangash Pate (for dedicated and outstanding work to medical profession)
2. Best IMA local Branch Rotating Trophy of Dr N.S.Chandra Bose for the year 2018-19 to IMA Dombivli (for medium branch)

IMA National President's appreciation Award as Best WDW State Secretary – Dr Niti Upasani

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CONTRIBUTIONS BY IMA DOCTORS FOR THE WELFARE OF DOMBIVILI

The Doctors of IMA Dombivili have contributed in a very significant way for the welfare of Dombivili. I have made a small effort to enlist a few of them. If I have missed anyone, it is unintentional.

S.No.	Doctors	Contributions
1	Dr. U P Rao, Dr. Upasani, Dr. Acharya	Formed the Dombivili Shikshan Prasharak Sansthan, which runs K.V.Pendarkar college and Sister Nivedita School.
2	Dr. R.M.Bhat	Founder and First President of FESCOM (Federation of Senior Citizen's Organisation of Maharashatra). He started the first Club in Dombivili, and it has spread its wings all over India.
3	Dr. Suresh Adkar	Founder of Astitva - an organisation dedicated to the development of the Disabled.
4	Dr. Y.S.Acharya	Started Centre for 'Deaf and Mute'and managed the 'Rotary School for Deaf and Mute'. Founder and Chairman of GSB 's school S.A.Pai Memorial school.
5	Dr. Sunil Puntambekar	Started Patient Guidance cell and Anita Rugna Sahayya kendra for helping patients.
6	Dr. Kirtida Pradhan	One of Founder member of 'Janani Ashish',a charitable trust to look after Destitute children.
7	Dr. Ulhas Kolhatkar	Started Herbal Garden and Butterfly Park in Rotary Garden, Dombivili
8.	Dr. Leena Lokras	Started Health care centre in Gograswadi - a charitable centre for health care
9.	Dr. M.H Cheddha	Started Manav Kalyan Kendra for providing health care facilities to the needy.
10.	Dr. Prasad J Kamath	Bombay Natural History Society trained certified Natural Conservationist founded Indian Ecological Foundation finding logical solution to ecological problems.

डोंबिवली - एक दृष्टिक्षेप

स्मिता फाटक
पेंढरकर महाविद्यालयातील निवृत्त प्राध्यापिका

एखादे शांत वातावरण असलेले हिरवाईने सजलेले, प्रचंड विस्तार आणि माणसांची दाटी नसलेले गांव शहरीकरणाच्या प्रक्रियेत सापडते. मग त्याचा चेहरा पार बदलतो. हव्याशा असलेल्या आणि नकोशा वाटणा–या अनेक बदलांना सामोरे जाते. साधारणपणे अशा प्रत्येक गावाची कथा डोंबिवली सारखीच असावी. ६०–७० च्या दशकात सुरु झालेल्या स्थलांतरणाच्या, शहरीकरणाच्या लाटेत डोंबिवली वेगाने वहायला लागली.

महाराष्ट्राची राजधानी असलेली मुंबई आज भारताची आर्थिक राजधानी आहे. हया राजधानीत अनेक उद्योगधंदे, बँका, वित्तीय संस्थांची कार्यालये, देशी परदेशी कंपन्यांची कॉर्पोरेट हाउसेस, केंद्र आणि राज्य सरकारांची कार्यालये, खाजगी संस्था ह्यांचा मोठा पसारा मुंबईत आहे. सुशिक्षितांना सुरक्षित नोक–या, कुशल अकुशल हातांना रोजगार पुरवण्याची क्षमता मुंबईत होती आणि आहे. ६०–७०च्या दशकात मध्यमवर्गीयांना नोकरी मुंबईत मिळाली तरी राहती घरे मुंबईत परवडण्याजोगी नव्हती. डोंबिवली मुंबईला रेल्वेने जोडलेली. शांत, सुरक्षित आणि सुशिक्षित वातावरण होते. घरांच्या किमती परवडण्याजोग्या होत्या आणि रेल्वे हे नेहमीच प्रवासाचे सगळयात स्वस्त असे साधन होते. हे सगळे घटक डोंबिवलीच्या वाढीसाठी अनुकुल होते. त्यामुळे नोकरदार माणसे डोंबिवलीत खूप मोठया संख्येने आहेत. त्यांचे आर्थिक नाते मुंबईशी जोडलेले होते आणि भावनिक नाते हळुहळु डोंबिवलीशी जोडले जात होते. महाराष्ट्राच्या सगळया भागातून, पुणे, सुांगली, सातारा, नाशिक, जळगांव, नागपूर अशा सागळया शहरांतून लोकांनी डोंबिवलीत स्थलांतर केले. डोंबिवलीने त्यांना सामावून घेतले.

शहरीकरणामुळे डोंबिवलीचा व्याप जसा वाढत गेला तसा इथल्या स्थानिक संस्थांच्या स्वरुपातही बदल झाला. सुरुवातीची ग्रामपंचायत नंतर नगरपरिषद आणि आता कल्याणशी जोडली जाउन कल्याण डोंबिवली महानगरपालिका असे स्वरुप आले. ७० च्या दशकात डोंबिवलीत एमआयडीसी सुरु झाली. अनेक छोटे मोठे उद्योगधंदे हया परिसरात सुरु झाले. काळाच्या ओघात आज उभा नसला तरी त्यावेळी प्रिमिअर कपनी सारखा खूप मोठा उद्योग उभा राहिला. एमआयडीसी मधे अनेक रासायनिक उत्पादनांचे कारखाने सुरु झाले. डोंबिवलीच्या तेव्हाच्या लोकवस्तीबाहेर हे उद्योग उभे राहिले हयावर आज कोणाचा विश्वासही बसणार नाही. एमआयडीसीच्या सीमापर्यंत आज निवासी संकुले उभे रहिली आहेत. अतिशय वेगाने वाढलेल्या डोंबिवलीत आज मोकळा श्वास घ्यायला जागा नाही. शाळा, इस्पितळे हयांनाही एमआयडीसी परिसरात इमारती उभ्या कराव्या लागतात आणि प्रदूषणाच्या साथीने काम करावे लागते.

डोंबिवलीच्या परिसरात उद्योगधंदे सुरु झाल्यानंतर त्यातल्या कर्मचाऱ्यांची संख्या वाढली. आर्थिक व्यवहार वाढले, व्यापार वाढला आणि त्याबरोबरच बँकांचीही वाढ झाली. डोंबिवली गाव हया रुपात असताना इथे केवळ २–३ खाजगी बँका होत्या. त्यात वाढ होउन बँक ऑफ महाराष्ट्र, स्टेट बँक हयासारख्या मोठया बँका सुरु झाल्या. डोंबिवलीच्या स्थानिक लोकांनी पुढाकार घेउन डोंबिवली नागरी सहकारी बँक स्थापन केली. छोटयाशा जागेत सुरु झालेल्या या बँकेचा आज महाराष्टातल्या अनेक शहरांमध्ये विस्तार झाला आहे. डोंबिवलीच्या आर्थिक व्यवहारांमध्ये बँकेचे महत्वाचे स्थान आहे. आज डोंबिवलीत जवळ जवळ सर्व मोठया, महत्वाच्या सरकारी व खाजगी बँकांचे जाळे उभे राहिले आहे. आयुर्विमा महामंडळाचे एलआयसी कार्यालयही आता डोंबिवलीत आहे. हया सगळया गोष्टी डोंबिवलीतील मध्यमवर्गाच्या सुस्थितीच्या निदर्शक आहेत.

डोंबिवलीच्या वेगाने वाढणाऱ्या लोकसंख्येचा अर्थातच इथल्या शैक्षणिक, वैद्यकीय, सांस्कृतिक अशा सगळया क्षेत्रांवर परिणाम झाला. बरेचदा त्यांचे मूळ स्वरुपही बदलून गेले. इतकेच नाही तर त्या पारंपारिक व्यवसायांसोबत अनेक नव्या प्रकारचे उद्योग, सेवा उभे राहिले आणि अनेकांना रोजगाराच्या संधी उपलब्ध झाल्या.

सुरुवातीच्या काळात डोंबिवलीत स.वा.जोशी विद्यालय, टिळक नगर विद्या मंदिर, ध.ना. चौधरी विद्यालय हयासारख्या मोजक्या शाळा होत्या. वाढत्या विद्यार्थी संख्येची गरज भागविण्यासासाठी अनेक नव्या शाळा सुरु झाल्या. ६०–७० च्या दशकात शालेय शिक्षणाचे माध्यम प्रामुख्याने मराठी होते. परंतु मुंबईतल्या मोठया उद्योगांच्या केंद्र, राज्य सरकारांच्या कार्यालयामध्ये इंग्रजी जाणणाऱ्या लोकांची आवश्यकता मोठी होती. अशा परिस्थितीत मराठी माध्यमातून शिकणारी मुले मागे पडतील हया भितीने पालकांनी इंग्रजी माध्यमाचा आग्रह धरला आणि अनेक इंग्रजी माध्यमाच्या खाजगी शाळा सुरु झाल्या. पुढे जाउन हया शाळांमध्ये आयसीएसई, सीबीएसई सारखे अभ्यासक्रम सुरु झाले. आज नव्याने एकही मराठी शाळा निघू शकत नाही. उलट मराठी शाळा बंद करण्याकडे व्यवस्थापनाचा कल असतो. अर्थात हया सगळयामागे डोंबिवलीच्या

मध्यम वर्गाची आर्थिक भरभराट हे कारण आहेच. शिक्षण संपल्यानंतर महाविदयालयीन शिक्षणासाठी विद्यार्थ्यांना मुंबई गाठावी लागत होती. त्यावर उपाय म्हणून इथे महाविद्यालयांची सुरुवात झाली. के.वि. पेंढरकर महाविद्यालय हे डोंबिवलीतील पहिले महाविद्यालय असून सुरुवातीपासूनच आर्टस्, सायन्स व कॉमर्स अशा तीनही शाखांचा पदवी अभ्यासक्रम इथे सुरु करण्यात आला. हयानंतर आणखीही काही महाविद्यालये सुरु झाली. फार्मसी व इंजिनिअरींग महाविद्यालय ही सुरु झाले. परंतु आजही विशेष गुणवत्ता प्राप्त झालेल्या विद्यार्थ्यांचा ओढा मुंबईतील नामवंत महाविद्यालयांकडे असतो.

लोकसंख्यावाढीबरोबर इथल्या वैद्यकीय क्षेत्राचा विस्तार मोठया प्रमाणावर झाला. अगदी सुरुवातीच्या काळात डॉक्टरांची संख्या हाताच्या बोटावर मोजता येण्याजोगी होती. त्यावेळी कन्सल्टिंग रुम्स नव्हत्या तर दवाखाना असे उपचार केंद्राचे स्वरुप होते. खाजगी हॉस्पिटल तर एकही नव्हते. डॉ. राव ह्यांचे श्रीनिवास हॉस्पिटल हे इथले पहिले खाजगी हॉस्पिटल. डोंबिवलीत वैद्यकीय उपचारांमध्ये आधुनिक तंत्रज्ञानाचा वापर हया हॉस्पिटलने सुरु केला. एकच विशेष उल्लेख या ठिकाणी अप्रस्तुत ठरणार नाही. ६०-७० च्या दशकात महिला डॉक्टरांची संख्या कमी असतांनाही डोंबिवलीत डॉ. मालती प्रधान हया नामवंत महिला डॉक्टर वैद्यकीय सेवा देत होत्या. आज डोंबिवलीत अनेक खाजगी हॉस्पिटलस् आहेत. प्रत्येक वैद्यकीय शाखेतील तज्ञ डॉक्टर्स इथे आहेत आणि आधुनिक तंत्रज्ञानाच्या साहयाने होणारे जवळ जवळ सर्व उपचार डोंबिवलीत केले जात आहेत. अन्य सर्व क्षेत्रांच्या विस्ताराबरोबरच डोंबिवलीत सेवा क्षेत्राचाही विस्तार झाला आहे. खाद्यपदार्थांचे कंत्राटदार, सहलीचे, प्रवासाचे आयोजक. कर सल्लागार, गुंतवणूक सल्लागार अशा अनेक व्यावसायिकांनी डोंबिवलीत सेवा द्यायला सुरुवात केली. डोंबिवलीच्या बहुसंख्य लोकांना त्यांच्या नोकरी उद्योगासाठी १०-१२ तास घराबाहेर काढावे लागतात. रेल्वेचा अतिशय थकवणारा प्रवास करावा लागतो. दमलेल्या गृहिणी, नोकरी व्यवसायासाठी एकटया राहणा-या व्यक्ती अशा सर्वांसाठी घरगुती, जेवणाची पोळी भाजी मिळण्याची सोय दिलासा देणारी ठरते. डोंबिवलीची एक खासियत म्हणजे अशा प्रकारे सुविधा देणारी अनेक पोळीभाजी केंद्र आज डोंबिवलीत आहेत. डोंबिवलीकरांची गरज लक्षात घेउन अतिशय कल्पकतेने हयाची सुरुवात श्री. व सौ. कानेटकरांनी केली. आज त्यांचे अनुकरण इतरत्रही झाले आहे.

डेांबिवलीचे सांस्कृतिक विश्व समृद्ध आहे. ९० टक्के पेक्षा जास्त असलेला साक्षरतेचा दर आणि नाटकांवर प्रेम करणारे मराठी मन एकत्र येण्याने इथे अनेक दर्जेदार नाटकांचे हाउसफुल प्रयोग सावित्रिबाई फुले नाटयगृहात होतात. सुरुवातीच्या काळात नाटकांचे प्रयोग जोशी विद्यालय किंवा जोंधळे विद्यालयाच्या पटांगणावर होत असत. बहुधा त्या काळी ध्वनीविज्ञान हा शब्दही कोणाच्या मनात नसावा. गर्दी आणि वाहनांची वर्दळ प्रचंड वाढल्यानंतर हे प्रयोग बंद झाले. नवे नाटयगृह होईपर्यंत ते बंदच राहिले. पण नाटकांची आवड टिकून राहिली. केवळ नाटयप्रयोगच नव्हेत तर शास्त्रीय संगीताचे, भावगीतांचे काव्यवाचनाचे, नृत्याचे अनेक प्रयोग होत असतात आणि जाणकार श्रोत्यांची, रसिक प्रेक्षकांची दाद त्यांना मिळते.

आज सर्व दिशांनी डोंबिवली प्रचंड वाढली आहे. आता वाढीला जागा नाही अशा टप्प्यावर थांबली आहे. डोंबिवलीला खेटून असलेली गावे आता डोंबिवलीची उपनगरे झाली आहेत. फिरण्यासाठी मोकळया जागा, मोकळी मैदाने आणि मोकळा श्वास सोडून सगळया सुखसोयी डोंबिवलीत आहेत. खरेदीसाठी मुंबईला जाण्याची गरज संपलेली आहे, उत्तमोत्तम गोष्टींनी बाजारपेठ भरलेली आहे. या सगळयाबरोबर खंत वाटायला लावणा-या गोष्टीही आहेत. डोंबिवलीची वाढ सुनियोजित पध्दतीने झालेली नाही. इथल्या रस्त्यांची दुर्दशा हा डोंबिवलीकरांसाठी अतिशय चीड आणणारा, त्रासदायक विषय आहे. अर्थातच हयाला सगळयाच पक्षामधले राजकीय नेतृत्त्व जबाबदार आहे. विद्यार्थी संख्या खूप मोठी असूनही, १०वी नंतर व्यावसायिक शिक्षण घेणाऱ्या विद्यार्थ्यांसाठी आय.टी.आय. सारखी शासनाची संस्था नाही. महानगरपालिकेचे रुग्णालय इथे आहे. रुग्णांची संख्या मोठी आहे. तज्ञ डॉक्टर्स आहेत पण त्याला जोडून मेडिकल कॉलेज निघू शकलेले नाही. फ्रेंण्डस लायब्ररीचा अपवाद वगळता उत्तम दर्जाचे मोठे वाचनालय, मोठया संशोधन संस्था किंवा अन्य नावाजलेल्या संस्था डोंबिवलीत नाहीत. सुशिक्षितांच्या हया शहरात हया सगळया गोष्टींची उणीव आहे. नजिकच्या भविष्यात हयातील काही उणिवा तरी दूर होतील आणि त्या अर्थानेही डोंबिवली समृध्द होईल अशी आशा आपण करुया.

...

'YOGESH ACHARYA'

As seen through eyes of Dr. Ashwini Acharya

Work is worship perfectly describes Dr Acharya.

His dedication and knowledge in Paediatrics has been honored with numerous awards & positions of responsibility in the medical profession. To list a few -

1. Dhanwantari Award from Brahman Sabha Dombivli.
2. Special Recognition Award from Thane IAP for his contribution in the field of Paediatrics
3. President of Maharashtra State IAP. He has lead pulse polio campaigns in KDMC
4. President of Dr. Athawale Foundation of Paediatrics, Sion
5. Teaching faculty at Wadia Hospital
6. Teacher in Paediatrics, Terna Medical College
7. Chief editor of Paediatric Clinics of India
8. Founder President IAP, Dombivli-Ulhasnagar Division
9. Chairman, MahaPediCon.

In addition to excellence in Paediatrics, he is well known for his immense contribution towards social welfare & community betterment. Some of the Stellar Institutions he has founded or mentored include:

1. Founder trustee of Dombivli Shikshan Prasarak Mandal which manages
   - Pendharkar College
   - Sister Nivedita School
   - Prabhakar Desai International School
   - Vanita's Mother Touch Day Care Centre
2. Founder member of Dombivli Gymkhana. He started ' Utsav' festival during his tenure as President at Dombivli Gymkhana
3. As the local Rotary President, he started Rotary vocational centre for Deaf children & managed Rotary school for Deaf and Mute.
4. Founder and chairman of GSB Trusts Sitaram A Pai Memorial School.
5. Chairman, Vineeta Education Trust managing Adarsh English School.
6. Trustee of Birla College and Birla International School.

In Karnataka, he has built SwamyNarayan temple in his home town, and been main sponsor for scholarship for economically deprived and minority children. He has been recognized with Award from Karnataka Government for his contribution towards Social welfare.

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क्रिडाप्रेमी कर्मयोगी - डॉ. सुधीर मेस्त्री

श्री. अनंत सोनावणे ह्यांच्या नजरेतून

डॉ. सुधीर भगवान मेस्त्री. डोंबिवलीतले एक वरिष्ठआणि लोकप्रिय डॉक्टर . रुग्णांचे लाडके डॉक्टर काका. पण त्यांची ओळख केवळ एक निष्णात डॉक्टर म्हणून मर्यादित नाही; तर एक उत्कृष्ट खेळाडू आणि क्रीडाप्रेमी म्हणूनही ते ओळखले जातात.

आगाशीच्या काशीदास घेलाभाई हायस्कूलमध्ये सहावीत असताना कोणत्याही क्रीडा स्पर्धेत नाव नसल्याने लहानगा सुधीर रडू लागला. मग त्याची समजूत काढण्यासाठी शिक्षकांनी त्याला सहज लांब उडी स्पर्धकांच्या रांगेत उभं केलं, तर या मुलाने चक्क पीटच्या बाहेर उडी मारून सिल्वर मेडल पटकावलं ! आणि लगोरी, नेमबाजी स्पर्धेत तर गोल्ड मेडल जिंकलं ! तेव्हापासून प्रत्येक क्रीडा प्रकारात भाग घ्यायचा आणि बक्षीस जिंकायचं हे ठरूनच गेलं. हाच खेळाडू पुढे शाळेच्या खो-खो टीमचा कप्तान झाला. 'शाळेच्या कै. एल. वाय. राऊत सरांनी माझ्यातला खेळाडू घडवला', असं डॉ मेस्त्री आवर्जून सांगतात.

महाविद्यालयात तर त्यांची क्रीडा कारकीर्द आणखी बहरली. धावणे, लांब उडी, उंच उडी, रिले, थाळीफेक , गोळाफेक, भालाफेक इत्यादी सर्व क्रीडा प्रकारात त्यांनी बक्षिसं जिंकली. पाटकर महाविद्यालयात 2 वर्ष आणि के. ई. एम. वैद्यकीय महाविद्यालयात 5 वर्ष ते आथिलेटीक्सचे चॅम्पियन होते ! मुंबई विद्यापीठ स्तरावर 6.62 मीटर लांब उडी मारून त्यांनी विक्रम प्रस्थापित केला !

शिक्षण संपल्यावर स्वतःचा दवाखाना सुरू केल्यानंतर सुरुवातीचा काळ खडतर होता. त्यामुळे तेव्हा खेळाकडे लक्ष देता आलं नाही. पण व्यवसायात जम बसल्यावर त्यांनी रुग्ण म्हणून येणाऱ्या मुलांमध्ये खेळाडू शोधायला सुरुवात केली. जी मुलं खेळात प्रगती करू शकतील अशा मुलांना तयार करायचं त्यांनी ठरवलं. आणि त्यानुसार या मुलांना मार्गदर्शन करणे, त्यांच्या प्रगतीवर लक्ष ठेवणं, आवशयकतेनुसार त्यांना मदत करणं, कधी प्रत्यक्ष मैदानावर जाऊन त्यांचा सराव करून घेणं, आत्मविश्वास वाढवणं, त्यांच्या दुखपतींवर योग्य उपचार करणे असं व्रत गेली 40 वर्ष अखंड सुरू आहे. वैद्यकीय महाविद्यालयात असताना डॉ रवी बापट आणि डॉ ए बी समसी यांच्या स्पोर्ट्स ओ पी डी मध्ये बसून स्पोर्ट्स मेडिसीन शिकून घेतलं, त्याचा हे खेळाडू घडवण्यात खूप उपयोग झाला, असं डॉ मेस्त्री कृतज्ञता पूर्वक सांगतात.

डॉ मेस्त्री यांनी घडविलेल्या खेळाडूंच्या यादीवर नजर फिरवली तरी त्यांच्या कामाचं मोठेपण ध्यानात येतं. भारतीय कसोटी संघाचा उपकर्णधार अजिंक्य रहाणे, शिव छत्रपती पुरस्कार विजेती श्रावणी राऊत, मयुरी अय्यर, पूर्वा मॅथ्यू , जुई नगारे, तृषा

नायर, ओजस मोहिते आणि इतर अनेक खेळाडू राज्य, देश आणि आंतरराष्ट्रीय पातळीवर चमकत आहेत. डोंबिवलीचा रोहित माने तर सध्या भारतीय अथलेटिक्स संघाचा कोच आहे . या सर्व खेळाडूंच्या प्रत्येक स्पर्धेवर डॉ मेस्त्रींच बारकाईने लक्ष असतं , आणि हे खेळाडू प्रत्येक स्पर्धेआधी त्यांच्या डॉ काकांचा न चुकता आशीर्वाद घेतात.

या साऱ्या प्रवासात आपली पत्नी डॉ पल्लवी मेस्त्री यांची अत्यंत मोलाची साथ लाभल्यानेच आपण खेळाची आवड जोपासू शकलो, असं डॉ आवर्जून सांगतात.

मे 2020 मध्ये कोरोना मुळे डॉक्टरांची प्रकृती चिंताजनक झाली होती. त्यावेळी अजिंक्य रहाणे बरोबरच भारतीय क्रिकेट निवड समितीचे माजी अध्यक्ष किरण मोरे आणि भारताची ऑलम्पिक धावपटू द्युती चंद यांनी त्यांना व्हिडीओ मेसेज पाठवून 'लवकर बरे व्हा' अशा शुभेच्छा दिल्या. या दिग्गज खेळाडूंच्या शुभेच्छांमुळे त्या खडतर काळात मनाला उभारी मिळाली. तसंच मैदानी खेळ आणि नियमित व्यायाम यामुळे शरीर कणखर असल्याने कोरोनाचा पराभव करू शकलो, असं डॉ मेस्त्री सांगतात.

नव्या पिढीने अभ्यासाबरोबरच खेळालाही प्राधान्य द्यावं , कारण खेळामुळे शरीर आणि मन भक्कम होतंच, शिवाय एक माणूस म्हणून ही तुम्ही उत्तम घडता, असं त्यांचं मत आहे.

आज वयाच्या सत्तरीतही खेळाडू घडवण्याचं काम करणाऱ्या या क्रीडाप्रेमी कर्मयोग्याला मनःपूर्वक सलाम !

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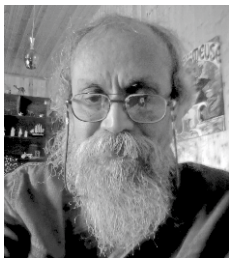
Nobel Laureates in Past Decade

Year	Nobel Laureate	Discovery
2020	Harvey J. Alter, Michael Houghton and Charles M. Rice	Discovery of Hepatitis C virus
2019	William G. Kaelin Jr, Sir Peter J. Ratcliffe and Gregg L. Semenza	Discoveries of how cells sense and adapt to oxygen availability
2018	James P. Allison and Tasuku Honjo	Cancer therapy by inhibition of negative immune regulation
2017	Jeffrey C. Hall, Michael Rosbash and Michael W. Young	Molecular mechanisms controlling the circadian rhythm
2016	Yoshinori Ohsumi	Mechanisms for autophagy
2015	William C. Campbell and Satoshi Ōmura	A novel therapy against infections caused by roundworm parasites
2015	Tu Youyou	Novel therapy against Malaria
2014	John O'Keefe, May-Britt Moser and Edvard I. Moser	Discoveries of cells that constitute a positioning system in the brain
2013	James E. Rothman, Randy W. Schekman and Thomas C. Südhof	Machinery regulating vesicle traffic, a major transport system in our cells
2012	Sir John B. Gurdon and Shinya Yamanaka	Mature cells can be reprogrammed to become pluripotent
2011	Bruce A. Beutler and Jules A. Hoffmann	The activation of innate immunity
2011	Ralph M. Steinman	The dendritic cell and its role in Adaptive Immunity

JUST WHAT A DOCTOR SHOULD WANT - IN WORKING LIFE ..?

Dr. Shyamkant C. Ghotikar



Is it name ? Fame ? Recognition ? An image ? Cash - or Kind ? Some desired pedestal to be occupied - before eventually stepping into the Sunset ?

I' d like to think - a doctor - like anyone else - strives - predictably so - to make a mark - for self - as he (or she) accepts the chosen area of work .

To make a name - is a priceless offshoot return - the Fame being the most appreciated & natural.

Money has always been the 'perks' of our profession. That's the ultimate (& only) truth.

For a conscientious doctor - to deliver what is expected of - to those who seek his/ her services- has always been of paramount significance . To stand upto the Test of Time - IS secondary - for many things - not in our control - operate herein.

The scope of work differs - from the Branch & Discipline of one's education . But the objective remains constant - that the knowledge obtained should help alleviate sufferings of our fellows in distress.

Not all - who step into the Medical Vocation - will be fated to become - a Dhanwantari - or a Shushrut - or an Albert Schweitzer - or a William Halstead - or a William Morton - or a Horace Wells - or a

B C Roy - or a Christiaan Barnard - or a contemporary Bharat Watwani -or a Prakash Amte - or a Ravindra Kolhe or his equally devoted better half Smita (of Melghat) - Or hope to become a scientist - like : Robert Koch - or Edward Jenner - or Jonas Salk - or Benting - Here, I would imagine - one would like to become (A J Cronin's unforgettable) Andrew Manson... ...Or - that someone - who one has idolized all his/ her life..

Who knows- one CAN really BECOME one of these coveted idols - as the clock ticks by - when the Providence would intervene... After all - man lives a lifetime - chasing a consuming dream.. thinking of leaving behind a legacy for posterity..

Life comes with it a certain promise - of rewarding people for their work input & contribution - the rewards which come in due course - sooner - or for some - much later- but never leaves anybody unrecognised..

That's what a medico strives for in work. That's the effective earning by the end of the day..

This is one revered objective - For all other returns pale - in comparison - even prove short lived ..

We all are aware that we are given a working life span - or a 'shelf life' if you please - which hardly comes lined with roses - or presents a cakewalk - for the most. But - a doctor would always be remembered & known by the efforts, concern & the toil - that will never go un-noticed..

This kind of an earning - whether tangible or not - need be the only meaningful gains - consistent after a goal - & the contentment sequel longed for ..

After all , that's the one take home fortune - that will stay - forever...

• • •


#Corona

MEDICAL MANAGEMENT OF COVID 19

Dr. Mala V. Kaneria
Professor and Unit Head, Department of Medicine,
T. N. Medical College and B.Y.L. Nair Ch. Hospital AND Kasturba Hospital for Infectious Diseases
AND Consultant in Infectious Diseases, Jaslok Hospital and Research Centre

Introduction

Coronavirus disease 2019 (COVID-19) is a respiratory infection caused by a newly emergent betacoronavirus, SARS-CoV-2, that was first recognized in Wuhan, China, in December 2019. It was earlier believed to be a predominantly respiratory illness similar to that caused by its cousin, the SARSCoV, with ARDS being a severe manifestation. We now know that COVID 19 has a kaleidoscope of presentations, with no organ system in the body being spared.

The disease course consists of an incubation period of 14 days (mean 5.1 days), followed by an acute viral syndrome comprising of both flu like symptoms such as fever, sore throat, dry cough, fatigue as well as atypical symptoms such as dizziness, severe myalgia, burning feet, palpitations, etc.

While 80-85% of those infected will develop mild or uncomplicated illness, a minority will develop severe disease requiring hospitalization and oxygen support and 5% will require admission to an intensive care unit . Accumulating evidence has suggested that the cause of the critical stage in COVID 19 is inflammation mediated, due to the immune dysregulation or the cytokine storm which sets in after 7 to 10 days.

One of the biggest mysteries of the pandemic is why certain individuals go on to have severe manifestations while some don't inspite of sharing similar risk factors.

According to worldwide literature, COVID 19 is now considered to be a prothrombotic state responsible for arterial and venous thrombosis. A subset of patients present with thrombotic complications like acute myocardial infarction, strokes, deep vein thrombosis, lower limb ischaemia, etc. This presentation has no correlation to the age, severity of illness, presence of other comorbidities or the use of adequate and appropriate antiplatelet agents or anticoagulants.

Neurological and cardiac complications such as Guillain Barre syndrome, neuropathies, unexplained heart failures etc have been observed after 15 to 20 days of the acute illness.

There is no known effective treatment for either preventing COVID 19 or for its treatment as of now. The most effective tools we have, at the moment, are public health measures out of the 19th century such as quarantine and social distancing in addition to hand hygiene and masking.

Screening and Triage

Screen all patients for respiratory symptoms and fever at the initial point of entry/contact (Casualty / EMS / OPD) and isolate suspected patients of COVID 19 in a separate area after giving them a mask. Be alert to the possibility of atypical manifestations especially in the high risk group. Initiate **infection prevention and control** measures at the point of entry of the patient to the OPD / hospital.

INSTRUCTIONS FOR SUSPECTED PATIENTS

To use a triple layer surgical mask

Keep at least 1 m distance from other patients

Perform hand hygiene after contact with respiratory secretions

To follow hand hygiene

Clinical Severity

A. MILD : mild symptoms such as fever, cough, sore throat, nasal congestion, malaise, headache, without evidence of breathlessness or hypoxia (normal saturation). Oxygen saturation by pulse oximetry should be checked accurately even in patients who don't complain of dyspnoea and appear comfortable, in order to detect **Happy Hypoxics or Silent Hypoxics.**

This category of patients can be managed in a COVID Care Centre (CCC) or at home, subject to fulfilment of conditions stipulated by state and local health authorities.

B. MODERATE : Pneumonia with no signs of severe disease. Presence of clinical features of dyspnea and or hypoxia, fever, cough, including

SpO2 < 94% (range 90-94%) on room air, Respiratory Rate more than or equal to 24 per minute.

This category of patients should be managed in a Dedicated COVID Health Centre (DCHC)

C. SEVERE : Severe pneumonia with one of the following; respiratory rate >30 breaths/min, severe respiratory distress, SpO2 < 90% on room air. This category also includes severe patients with ARDS, sepsis and septic shock who would require intensive management strategies.

This category of patients should be managed in a Dedicated COVID Hospital (DCH)

INVESTIGATIONS

Microbiological

- RT PCR : nasopharyngeal or oropharyngeal swab (gold standard test)
- Rapid Antigen test (RAT)

All positive rapid antigen test results are considered as true positives. All negative RAT results should be confirmed by RTPCR, due to the high rate of false negativity with RAT.

Radiological

- Chest radiograph
- HRCT Thorax

HRCT Thorax has a better sensitivity and specificity than XRC and would be preferred wherever possible. The incidence of false negatives is higher in the first 4 days of the illness.

Inflammatory markers

C reactive protein

ESR

Se ferritin

Se lactate dehydrogenase

D-dimer

Interleukin 6 levels

Se troponin, NT proBNP (where cardiac involvement and/or acute left ventricular failure suspected)

Procalcitonin (PCT) wherever indicated in cases of secondary bacterial infection or sepsis

ROUTINE

CBC with differential count (check neutrophil lymphocyte ratio)

BUN Se creatinine, Se electrolytes, Se uric acid, Liver function test, Blood sugar, Creatine phosphokinase (CPK)

HbA1C

Viral markers (HBsAg, Anti HCV), HIV (wherever indicated)

ECG (baseline and to be repeated when indicated)

Blood cultures (wherever indicated)

Sputum culture (bacterial, fungal if required)

Urine R/M, urine protein to creatinine ratio (in Acute kidney injury)

2D Echo if cardiovascular compromise, persistent hypotension, increasing troponin I (otherwise not indicated)

Additional tests as per existing co morbidities (such as Thyroid function tests, lipid profile, etc)

Other investigations as per the discretion of the treating physician

Serological tests

Antibody tests are an epidemiological tool and are useful for serological surveys. They do not have much clinical relevance. However, they may be used for emergency hospitalization or prior to emergency surgery or procedure.

A true positive antibody test conveys that a patient was infected with SARSCoV2 in the recent past. It does not tell whether he has recovered or is non infectious currently or is protected from reinfection.

A true negative result suggests that either there is no infection OR very early infection OR recovered and antibody response not mounted OR recovered and antibody levels have subsequently waned.

REMARKS

- RTPCR has a high rate of false negativity in the first 5 days of infection and should be repeated wherever strongly suspected.
- Raised total counts can be due to secondary bacterial infection and also due to the effect of steroids and should be interpreted with caution.
- SGPT (AST) may rise due to COVID 19 itself, in

the second week of illness. SGOT and SGOT rise (transaminitis) may also be due to the adverse effects of the antivirals Favipiravir and Remdesivir. Derangement in liver enzymes can also be due to a pre-existing underlying liver condition or in a critical patient. The co existence of other tropical infections causing transaminitis such as malaria, dengue, enteric fever ,etc should be remembered.

- Favipiravir is known to cause hyperuricemia as it is metabolized by aldehyde oxidase and xanthine oxidase. Hence, uric acid should be monitored, especially if the patient is on other drugs causing hyperuricemia such as Pyrazinamide.
- Se procalcitonin is a biomarker of bacterial infection and can be utilized in case of puzzling fevers, IF clinically correlating.
- Raised D dimer is observed in 50% of patients and high levels are shown to be associated with increased mortality (along with lymphocytopenia). The levels usually rise in the second week of illness.
- IL 6 levels are raised in cytokine storm (after the first week of illness) and may be used to guide immunomodulatory treatment in a compatible clinical situation.
- Many COVID 19 patients have tachycardia, bradycardia and other rhythm disturbances. Hence, ECG should be monitored at baseline and wherever indiacted.

MANAGEMENT

There is no known specific treatment for either the prevention of COVID 19 or for its treatment as of now. A number of randomised control trials are currently underway to find agents for treatment and prophylaxis and multiple vaccine candidates are in various phases of trials. Repurposed drugs which have been found to be effective based on randomised control trials, observational studies, etc are presently being used. These guidelines are based on available information suggesting possible benefit.

Mild

Patients with mild symptoms may be managed at home, in accordance with the state and local guidelines (always check the latest).

1. Symptomatic treatment (Paracetamol, Levocetrizine / other antihistaminics, Condy' s gargles). **NSAIDs should be avoided**
2. Tab Ivermectin 12 mg bd x 5 days
3. Cap Doxycycline 100 mg bd for 5 days

OR

4. Tab.Azithromycin 500 mg OD X 3-5 days
5. Tab Vitamin D3 500 IU OD for 15-20 days

OR

Vitamin D 60,000 K weekly for 8 weeks

6. Tab Zincovit 50 mg bd for 15 days
7. Tab Favipiravir (200 mg) 3600 mg divided in two doses on D1 (loading dose) AND 1600 mg divided in two doses from D2 to D5 or D7 or D14 depending on the resolution of symptoms.

   SGOT, SGPT, Se uric acid should be specifically looked at prior to starting Favipiravir as this can cause transaminitis and hyperuricemia. Favipiravir being teratogenic, in contraindicated in pregnancy. A urine pregnancy test must be done in women of child bearing age. Men should be instructed to follow contraception during treatment with Favipiravir and for 7 days thereafter.
8. Routine prescription of additional antibiotics is not indicated.

There is active viral replication in the first 7-10 days, therefore there is no role of steroids or other immunosuppressants at this stage as it may enhance viral replication and cause complications.

Patients with mild symptoms who are maintaining saturation but are in the high risk group need very close monitoring for deterioration.

Moderate

1. Supplemental oxygen to maintain a target saturation of 92-96 % (88-92 % in COPD patients). The device for administering oxygen (nasal prongs, mask, or masks with breathing / non-rebreathing reservoir bag) depends upon the increasing requirement of oxygen therapy.
2. Tab Ivermectin 12 mg bd x 5 days
3. Cap Doxycycline 100 mg bd for 5 days

OR

4. Tab.Azithromycin 500 mg OD X 3-5 days
5. Tab Vitamin D3 500 IU OD for 15 days

OR

Vitamin D 60,000 K weekly for 8 weeks

6. Tab Zincovit 50 mg bd for 15 days
7. Steroids :

a) Inj. Methylprednisolone 40 mg bd for 6-10 days or longer

OR

b) Inj Dexamethasone 6 mg OD for 6-10 days or longer

OR

c) Inj Hydrocortisone Hemisuccinate 50 mg every 6 hourly

8. Inj LMWH 0.6 mg mg SC OD (prophylactic dose)

   If creatinine clearance < 30 ml/minute, give UFH 5000 units SC bd

9. Remdesivir : IV Remdesivir 200 mg loading dose slowly over 60 minutes on D1

   100 slowly over 60 minutes from D2 to D5

10. If fever does not respond OR counts raised OR chest radiograph shows evidence of pneumonia or sputum culture grows an organism, antibiotics may be escalated to 3rd generation cephalosporins or Beta lactam/beta lactamase inhibitor combinations.

    IV Ceftriaxone 1gm bd

    OR

    IV Piperacillin-Tazobactam 4.45 gms q6hourly (with renal correction wherever indicated)

    OR

    Guided by culture report

Patients with moderate symptoms who are maintaining saturation but are in the high risk group need very close monitoring for deterioration.

SEVERE :

Such patients should be managed in the ICU

1. Treatment as indicated (Supplementary oxygen, IV fluids, mechanical ventilation, prone ventilation, ECMO, etc)
2. Inj Remdesivir (**IF patient presents in the first 7-10 days of symptoms, during the stage of active viral replication)**
3. Steroids :

a) Inj. Methylprednisolone 40 mg bd for 6-10 days or longer

OR

b) Inj Dexamethasone 6 mg OD for 6-10 days or longer

OR

c) Inj Hydrocortisone Hemisuccinate 50 mg every 6 hourly

4. Inj Tocilizumab 8 mg/kg very slowly by infusion (**IF patient presents after 8-10 days, during the cytokine storm and active infection is ruled out)**
5. Inj LMWH 0.6 mg SC bd

   If creatinine clearance < 30 ml/minute, give UFH 5000 units SC bd

6. IV Ceftriaxone OR (If there is evidence of bacterial infection)
7. IV Piperacillin-Tazobactam OR IV Meropenem (depending on the clinical severity, total counts, XRay findings, culture reports)
8. IV Azithromycin 500mg OD (for atypical organisms coverage; also acts as an immunomodulator)
9. IV Vancomycin 15 mg/kg **if** gram positive coverage required for staphylococcus aureus (according to creatinine clearance)

ROLE OF ANTICOAGULANTS :

Due to the increased incidence of thrombotic episodes and the raised D dimer, prophylactic or therapeutic anticoagulation is recommended in all hospitalized patients. Due to the recency of the pandemic and lack of compelling evidence, clinicians are following a variation of protocols. All patients admitted to the wards with moderate symptoms should be given prophylactic anticoagulation and ICU patients should receive therapeutic anticoagulation.

A point of debate is whether extended thromboprophylaxis with oral anticoagulants (OACs) should be given on discharge on the basis of raised D dimer, or not. If yes, then what is the OAC

of choice and what should be the appropriate duration.

If risk factors for VTE exist (and D dimer is > 3-4 times ULN) and no contraindication exists, the NOACs (either Apixaban 2.5 mg bd or Rivaroxaban 10 mg OD can be given for 45 days) and D dimer repeated on follow up.

ROLE OF STEROIDS :

The **RECOVERY** trial and other trials have shown that low dose steroids reduce the 28 day mortality in moderate to severe COVID patients who have hypoxia and the need for supplemental oxygen, provided they are started later in the course of illness (after the stage of viral replication). Though majority of the trials have tested dexamethasone, other steroids can be used too. When Remdesivir is being used as an antiviral, it is recommended to use methylprednisolone rather than dexamethasone, when indicated, as dexamethasone being a potent CYP 450 inducer, decreases remdesivir to subtherapeutic levels.

FAVIPIRAVIR :

is an oral antiviral which acts as a viral RNA dependent RNA polymerase inhibitor. It has been shown to improve the time to clinical recovery by 2 days and shorten the period of viral shedding by 2 days, if used very early in patients with mild symptoms, especially in the presence of comorbidities. Its advantage is the oral form, due to which it can be taken at home in patients who don't need hospitalization. It is contraindicated in the presence of pregnancy, significant transaminitis and significant hyperuricemia.

REMDESIVIR :

Is an antiviral which acts as a viral RNA dependent RNA polymerase inhibitor (like Favipiravir) and is available intravenously (unlike favipiravir which is available only orally). The Adaptive COVID 19 Treatment Trial (ACTT 1) proved that remdesivir decreased the time to recovery by 5 days, when used early in patients with hypoxia, though it did not reduce the mortality. However, recently, the WHO Solidarity trial did not confirm the results of the ACTT 1 trial. Remdesivir has recently acquired full approval by the US FDA. It is currently included in most of the guidelines and may be considered for use, in the first 7-10 days (period of active viral replication). Earlier it was contraindicated in chronic kidney disease (for fear of accumulation of SBECD, its vehicle, in renal failure), pregnant and lactating women. However, there is now adequate data in these groups to suggest recommendation, since SBECD can be removed by CRRT and HD.

TOCILIZUMAB :

The Cytokine Storm or Cytokine Release Syndrome (CRS) kicks in after 7-10 days, after the period of viral replication. At this time, the virus is on its way out and the patient is sick due to the immune dysregulation (host inflammatory response). Hence, in the setting of COVID 19 associated CRS, anti Interleukin 6 (IL 6) treatment with monoclonal antibody (Tocilizumab) might be most helpful if started early in this stage ; after the onset of severe disease but before florid respiratory failure. Tocilizumab, being a biological can cause secondary bacterial and fungal infections (COVID associated pulmonary aspergillosis or CAPA) and flaring up of latent tuberculosis, especially since most of the patients are diabetics and have received steroids.

Various RCTs have not shown its efficacy in either improving the clinical outcome or reducing the mortality. Therefore, its use may be considered in the appropriate situation, after ruling out active infection.

Convalescent Plasma therapy which involves transfusing the antibody rich plasma of a recovered COVID 19 patient, did not show efficacy in any of the trials, including the ICMR led PLACID trial. Therefore it cannot be recommended as a standard of care presently. Its off label use may be considered during the stage of viral replication, in clinical situations where deemed appropriate.

OTHER CONSIDERATIONS

(i) Continue statins if already prescribed for dyslipidemia. If not, add Tab Atorvastatin 40 mg or Tab Rosuvastatin 20 mg once at night (cardiovascular disease is a major risk factor for severity and statins may promote antiviral response ; AVOID if CPK >/= 500 or SGPT > 3 ULN)

(ii) Tab Aspirin 75 mg 0-1-0 (for DVT prophylaxis and as an anti-inflammatory)

(iii) If a patient is on ACEI or ARBs for hypertension or cardiac disease, they are not recommended to be stopped except in the presence of acute kidney injury, hypotension or any other contraindication.

Recurrent fever after recovery (and swab negative) and discharge

- Timing of the fever

  - If the fever recurs within one month and very close to the first episode,

a) Ongoing inflammatory fever related to COVID (especially if steroids have just been discontinued). Repeat CRP, ferritin, D dimer and se procalcitonin. If inflammatory markers are raised and procalcitonin is normal and no focus of infection, a short , tapering dose of low dose steroids may be tried (off label indication)

b) Other infections like malaria , dengue, enteric fever, etc

  - Between 1- 3 months OR after 3 months

a) Unrelated to SARSCoV2

  - Other respiratory viruses

  - Other infections like malaria, dengue, enteric, UTI, pneumonia, cellulitis etc

b) Related to SARSCoV2

  - True SARSCoV2 reinfection (laboratory confirmation of two infections by two different strains, with timely separated illness/infection episodes, with symptom free period in between, negative swab reports and h/o exposure to a positive case in the previous 14 days). The ICMR has given a cutoff of 100 days, after which reinfection may be considered. A sufficient time lag between the two episode of fever raises the possibility of reinfection due to the waning of antibody levels.

  - Reactivation of SARSCoV2

Delayed presentation

- Imbalance while walking (GBS)
- Severe persistent myalgia and fatigue
- Delayed respiratory symptoms due to post COVID fibrosis
- Burning feet, joint pains
- Renewed fever
- Lower limb pain and ischaemia
- Acute coronary syndromes, acute ischaemic strokes
- Persistent tachycardia or bradycardia
- Acute abdominal pain (mesenteric ischaemia)

As of 29th October 2020, India has 8,040,203 COVID-19 cases and 120,527 deaths, according to the latest government figures.

India is also vulnerable to a second wave of coronavirus (especially with the onset of winter) which the Western countries are currently grappling with and people should continue to follow social distancing, wearing mask and other precautions.

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IMAGING IN COVID-19

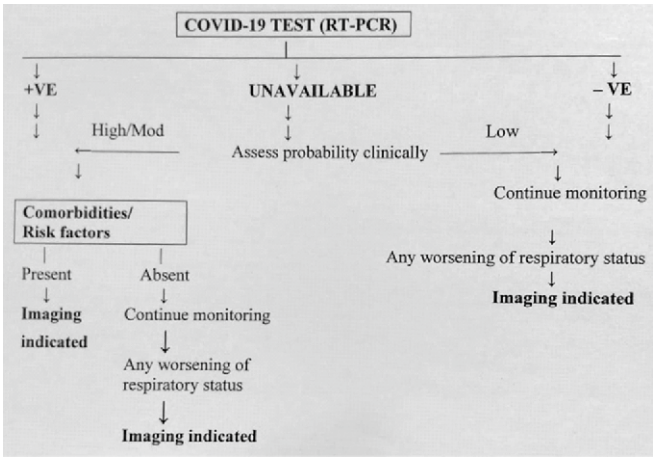
Dr. Sachin Patil
MD. DNB.
Consultant Radiologist

COVID-19 (Coronavirus Disease 19) is caused by SARS-CoV-2 (Severe Acute Respiratory Syndrome Corona Virus 2).

Clinically it presents with fever, cough, loss of smell & shortness of breath. Uncommon presentation may be with neurological, opthalmic and abdominal symptoms. But then, many patients may be totally asymptomatic!

The primary test for diagnosis is Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) assay of the throat swab. But as the incubation period is upto 14 days, there is possibility of negative RT-PCR during this period. No COVID-19 test is 100% sensitive.

Imaging is crucial in COVID-19 pandemic when it comes to suspected cases & course of the disease.



Here we consider the role of imaging modalities – X-ray, CT scan & USG in current situation.

What is seen in COVID-19 pneumonia?

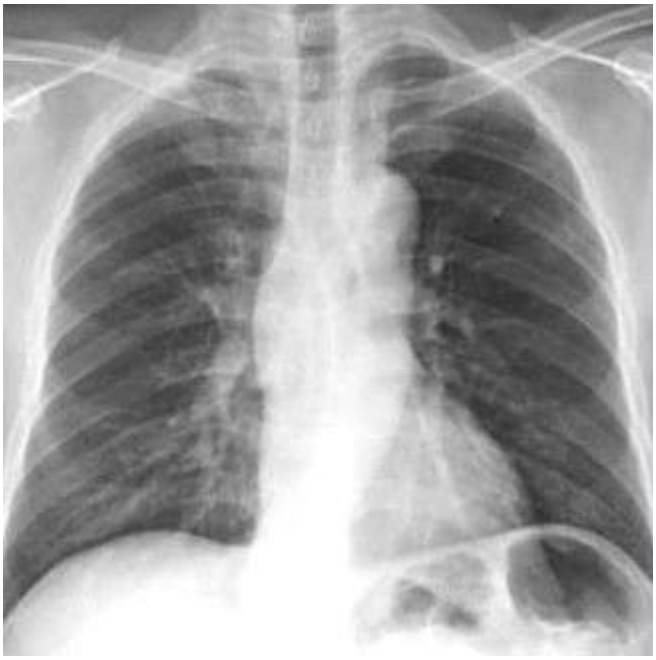
COVID-19 pneumonia causes increase density of lung seen as whiteness in the lungs on radiography.

CHEST X-RAY IMAGING

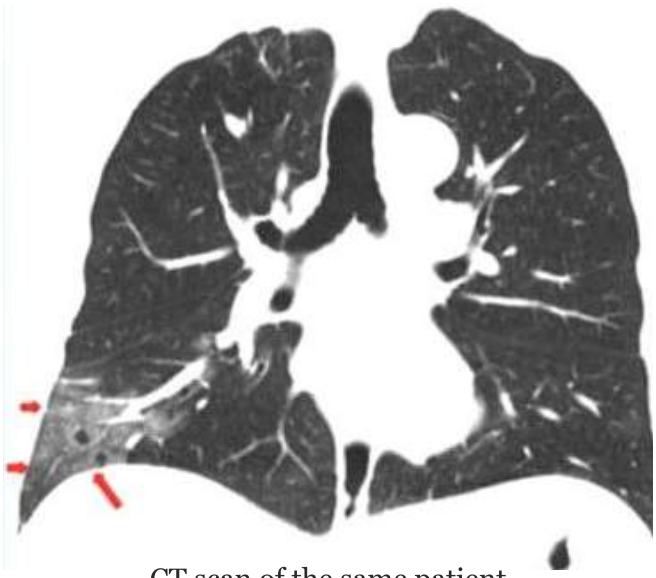
Chest X-ray has lower sensitivity in early disease. No signs of disease visible in the X-ray within first 3 days after onset of cough & fever.

Repeated chest X-rays might be appropriate to monitor the course of disease.

a. Initial Chest X-ray on day 3 of symptoms



Chest X-ray - NAD

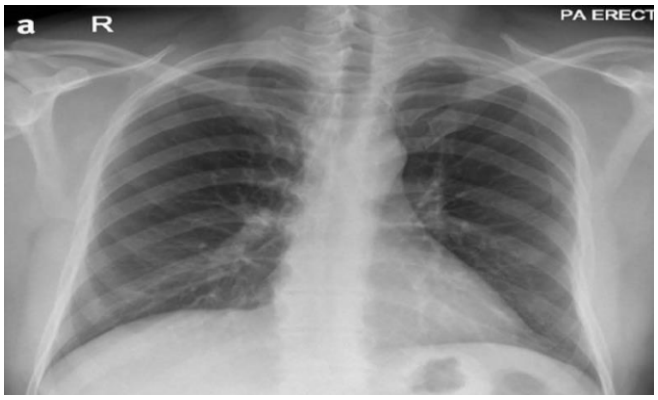


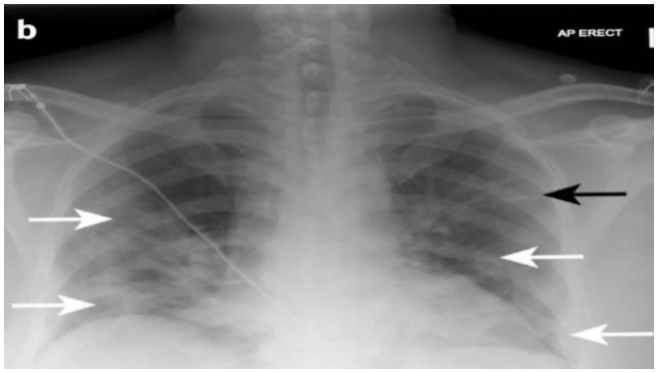
CT scan of the same patient

b. Follow up Chest X-ray

Peak radiological findings are seen after 10-12 days of onset of symptoms.

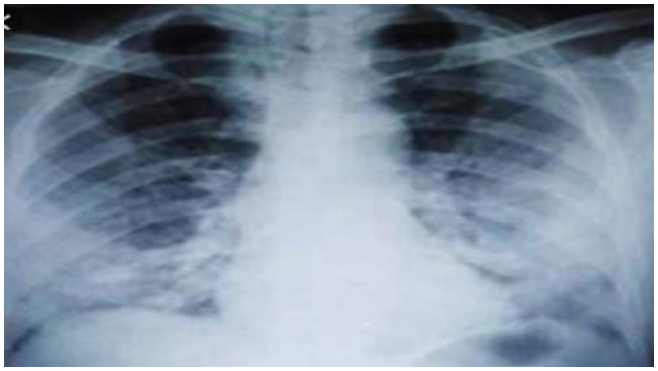
Most common changes in the lungs on Chest radography are -





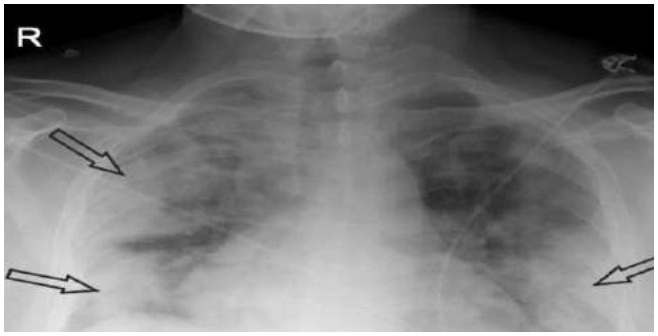
- **Ground Glass Opacity (GGO)**

Loss of normal black appearance of lung seen as increased whiteness but normal lung markings are seen.

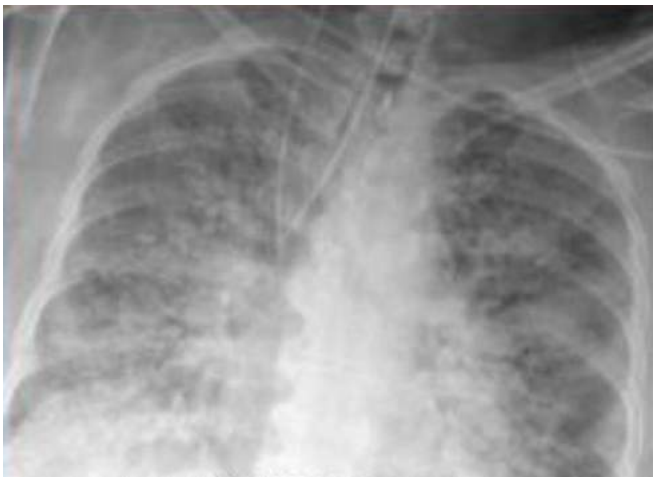


2. Consolidation

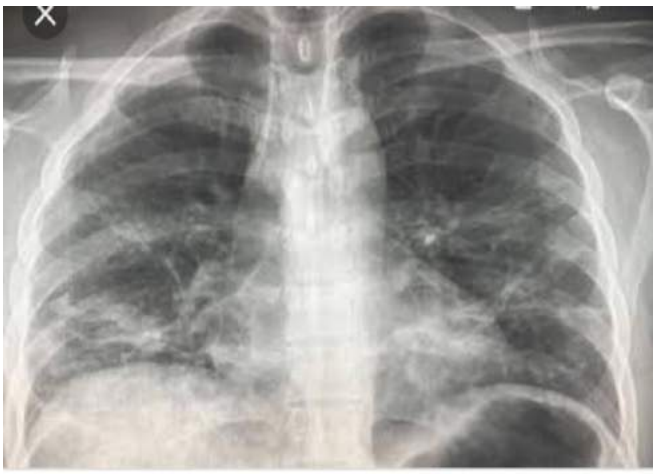
GGO becomes dense (more whiter) with complete loss of normal lung markings.



3. Nodular opacities

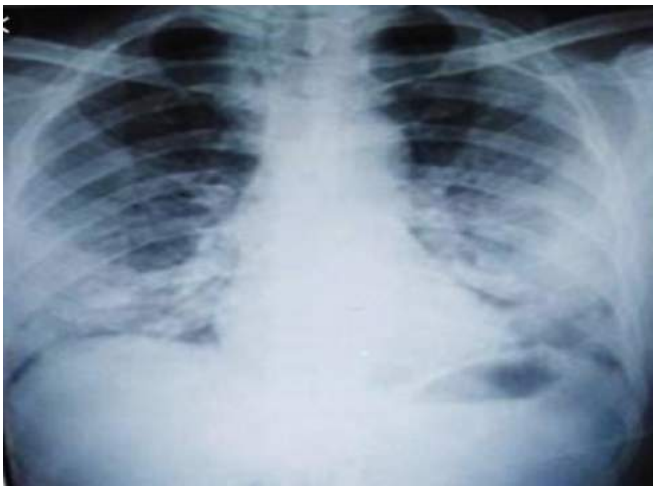


4. Coarse horizontal linear opacities



Which part of the lungs are usually affected?

Changes are usually multifocal, bilateral (but can be unilateral in upto 25% patients), peripheral & in lower zones of lungs.



Uncommon features are lobar pneumonia, pneumothorax, pleural effusion and pulmonary edema.

*** CT SCAN IMAGING**

CT SCAN chest is more sensitive for early parenchymal lung disease, disease progression, complications & alternative diagnosis.

Routinely, HRCT chest with no intravenous contrast is done for COVID-19 patients.

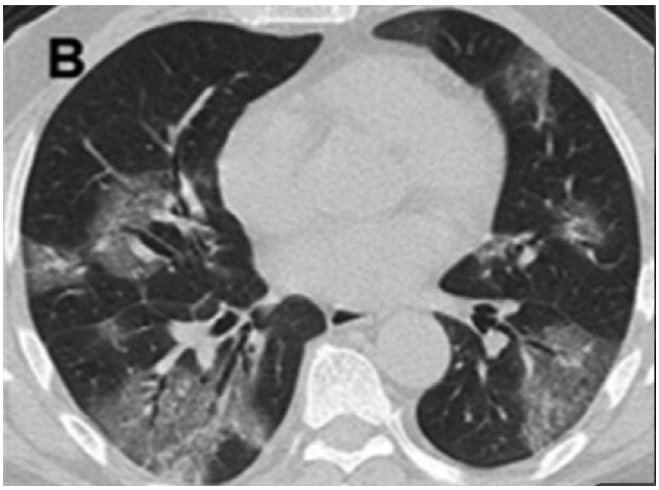
Contrast enhanced CT scan chest is done only for patients with suspected complications like pulmonary embolism or for evaluation of concomitant disease.

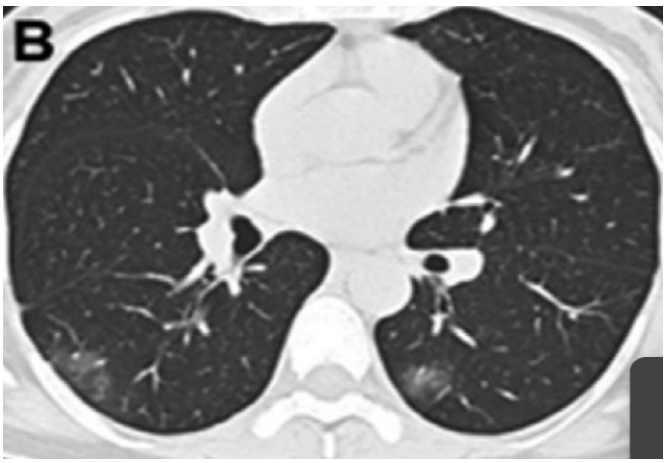
HRCT Chest findings are -

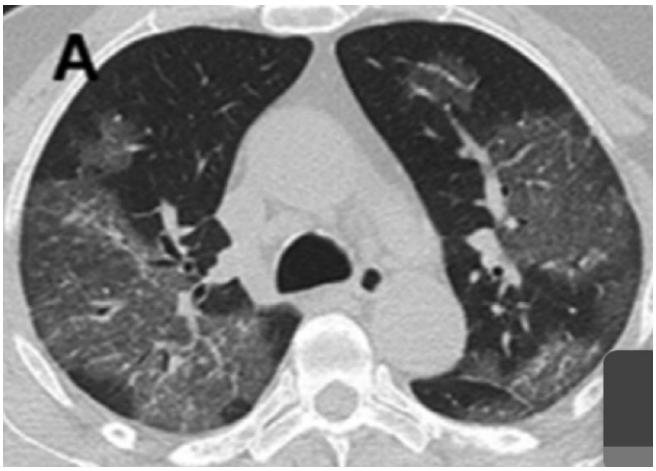
- **Ground Glass Opacities (GGO)**

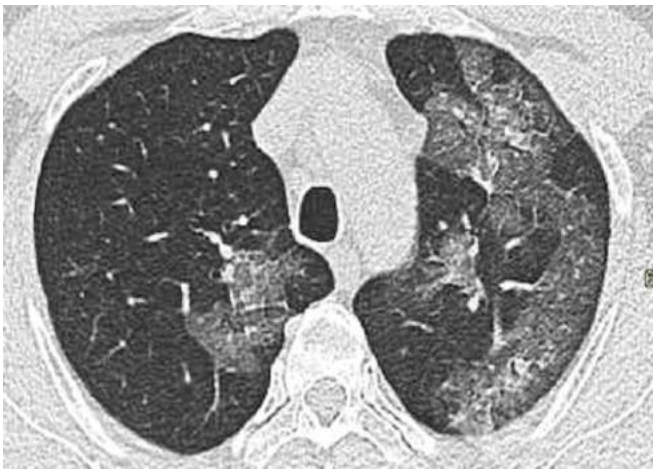
Most common finding -

Bilateral, multifocal, peripheral, posterior distribution, predominantly in lower lobes



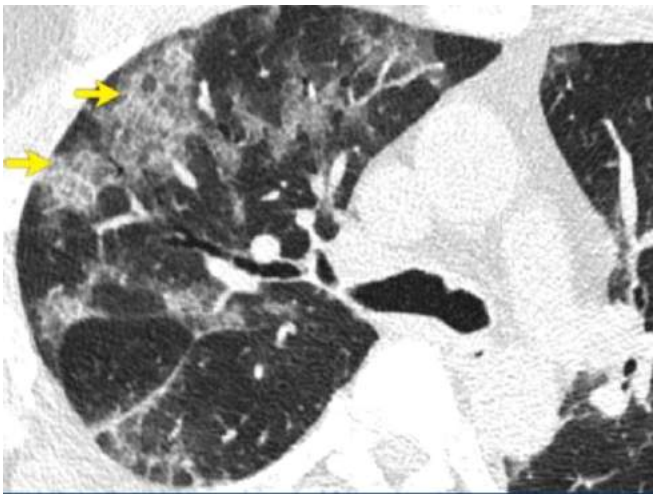






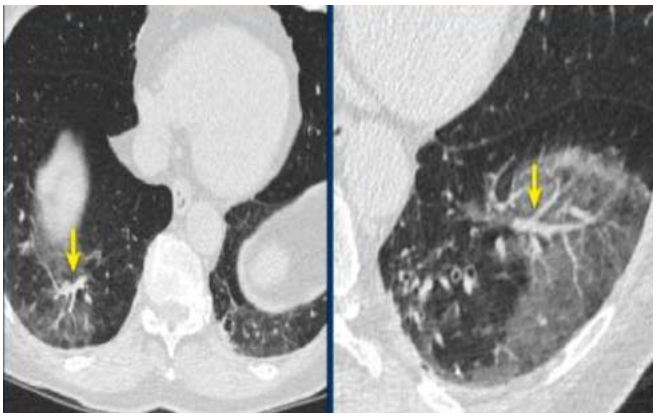
- **Crazy Paving Pattern**

Thickened interlobular & intralobular lines along with GGO.



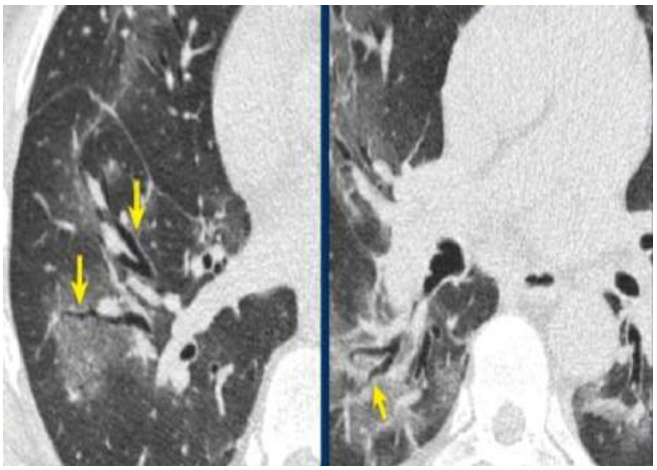
- **Vascular Dilatation**

Widening of vessels seen within the GGO

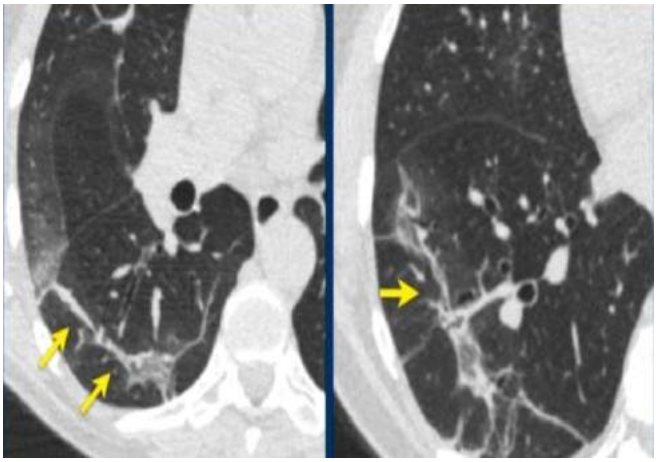


- **Traction Bronchiectasis**

Dilated bronchioles in areas of GGO



- **Subpleural Bands & Architectural Distortion**



CT changes over time

CT-changes over time		
Early stage	0-4 days	GGO, partial crazy paving, lower number of involved lobes
Progressive stage	5-8 days	Progressive (5-8 days): Extension of GGO, increased crazy paving pattern
Peak stage	10-13 days	Consolidation
Absorption stage	≥14 days	Gradual resolution

CORADS SCORE

The Dutch radiological society developed CORADS for standardization of HRCT chest reporting in COVID-19 patients.

	Level of suspicion for pulmonary involvement of COVID-19	Summary
CO-RADS 0	not interpretable	scan technically insufficient for assigning a score
CO-RADS 1	very low	normal or non-infectious
CO-RADS 2	low	typical for other infection but not COVID-19
CO-RADS 3	equivocal / unsure	features compatible with COVID-19, but also other diseases
CO-RADS 4	high	suspicious for COVID-19
CO-RADS 5	very high	typical for COVID-19
CO-RADS 6	proven	RT-PCR positive for SARS-CoV-2

CT SEVERITY SCORE

The European society of radiology developed CT severity score to assess severity of lung involvement in COVID-19 patients. It is based on percentage of involvement of each of 5 lobes of lungs.

Severity score	% of involvement of lobe
1	< 5 %
2	5 – 25 %
3	26 – 49 %
4	50 – 75 %
5	> 75 %

Total CT severity score is the sum of individual lobar scores.

It can range from 0 (no involvement) to 25 (maximum involvement)

CT scan chest is the imaging of choice in hypoxemia after recovery from COVID-19 for evaluation of delayed sequalae of the disease & post COVID complications.

* **USG IMAGING**

Role of USG in COVID imaging is very limited & is used for -

- USG abdomen for abdominal symptoms
- USG chest for diagnosis & confirmation of pleural effusion/ subpleural consolidation
- Color Doppler may be indicated in later stages to evaluate post COVID complications like DVT.

How can cross infection risk be minimized?

Contamination of the equipment must be avoided.

X-ray, CT scan & USG systems are wiped thoroughly with disinfectant wipes after every use.

To summarize :

- Normal imaging findings do not rule out COVID-19 infection. Co-relation with clinical symptoms and RT-PCR testing is needed.
- Repeat imaging is required to monitor the course of disease if warranted.
- Peak radiological severity is seen at 10-12 days after onset of symptoms.
- Imaging is important to evaluate post COVID complications.

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COVID IN CHILDREN

Dr. Unmesh Phadnis
Senior Paediatrician

Coronavirus disease 2019 (COVID-19) is an illness caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Throughout the world, fewer cases of COVID-19 have been reported in children than in adults. Most cases in children are mild, and treatment consists of supportive care.

Signs and symptoms of COVID-19 in children

Common symptoms of COVID-19 in children are cough and fever. It is important to note, however, that these symptoms may not always be present; thus, a high index of suspicion for SARS-CoV-2 infection is required in children.

Other symptoms include the following:

- Shortness of breath
- Pharyngeal erythema/sore throat
- Diarrhea
- Myalgia
- Fatigue
- Rhinorrhea
- Vomiting
- Nasal congestion
- Abdominal pain
- Conjunctivitis
- Rash

Pathophysiology

Severe acute respiratory syndrome coronavirus 2 (SARS CoV-2) infection is characterized by an initial cytokine storm that can result in acute respiratory distress syndrome and macrophage activation syndrome. This initial phase is then followed by a period of immune dysregulation, which is the major cause of sepsis-related fatalities.

Differences between adult and pediatric disease are likely the result of changes within both immune function and the angiotensin-converting enzyme (ACE) 2 receptor, used by the virus to enter type II pneumocytes in the lung. Decreases in ACE 2 receptors result in changes in neutrophil influx and resultant lung injury. Thus, immunosenescence and changes in inflammatory responses with age likely account for the different spectrum and severity of disease in children versus adults and, furthermore, in neonates versus older children.

Transmission

Severe acute respiratory syndrome coronavirus 2 (SARS CoV-2) is a highly infectious virus, and the main routes of transmission are **respiratory droplets** and contact with respiratory secretions and saliva. **Aerosol particles** may be another possible mode of transmission. SARS CoV-2 can remain viable on various surfaces for hours to days, although transmission is much more common through respiratory droplets than through fomites

Mother-to-child transmission

Based on limited data, no confirmed cases of vertical mother-to-fetus intrauterine transmission of the virus have been reported thus far. To date, SARS CoV-2 has not been detected in breast milk.

Family clustering appears to play a major role in disease transmission. Children most often acquire COVID-19 from adult family members rather than transmitting the virus to them. Older children and adolescents are more likely to transmit SARS CoV-19 to family members than are younger children.

Presentation

History

The typical incubation period of coronavirus disease 2019 (COVID-19) ranges from 1 to 14 days, with an average of 3-7 days

Physical examination

The most common signs and symptoms were cough (48.5% of patients), pharyngeal erythema (46.2%), and fever (41.5%). Other signs and symptoms included the following:

- Diarrhea (8.8% of patients)
- Fatigue (7.6%)
- Rhinorrhea (7.6%)

- Vomiting (6.3%)
- Nasal congestion (5.3%)
- Rash (2%)

About 29% of patients had tachypnea on admission, and about 42% had tachycardia.

The following conditions indicate a greater likelihood of severe disease:

- Dyspnea: Respiration rate of >50 breaths/min in children aged 2-12 months; >40 breaths/min in children aged 1-5 years; >30 breaths/min in patients older than 5 years old (after excluding the effects of fever and crying).
- Persistent high fever for 3-5 days.
- Poor mental response, lethargy, disturbance of consciousness, and other changes of consciousness.
- Abnormally increased levels of enzymes, such as myocardial and liver enzymes and lactate dehydrogenase.
- Unexplained metabolic acidosis.
- Chest imaging findings indicating bilateral or multi-lobe infiltration, pleural effusion, or rapid progression of conditions during a very brief period.
- Age younger than 3 months.
- Extrapulmonary complications.
- Coinfection with other viruses or bacteria.

Differential Diagnoses

The following conditions are included in the differential diagnosis of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection:

- Adenovirus infection
- Bacterial pneumonia
- Chlamydia pneumoniae
- Human metapneumovirus infection
- Influenza
- Mycoplasma pneumoniae
- Parainfluenza virus infection
- Respiratory syncytial virus infection
- Rhinovirus infection
- Severe acute respiratory syndrome (SARS)

Diagnosis

Laboratory studies

Although a consistent pattern of characteristic laboratory findings has not yet been identified in children with confirmed COVID-19, the following abnormalities have been observed:

- Lymphopenia
- Increased levels of liver and muscle enzymes and lactate dehydrogenase
- Increased myoglobin and creatine kinase isoenzyme levels
- Elevated C-reactive protein (CRP) level
- Elevated erythrocyte sedimentation rate
- Increased procalcitonin level

Imaging studies

Common **chest radiograph** findings in children with COVID-19 pneumonia include bilaterally distributed peripheral and subpleural ground-glass opacities and consolidation. [7]

Findings observed on **computed tomography (CT)** of the chest in children with COVID-19 include the following:

- Ground-glass opacities/nodules
- Consolidation with a surrounding halo sign
- Bilateral or local patchy shadowing
- Interstitial abnormalities

Imaging recommendations

Chest imaging is not generally recommended for initial screening of mildly symptomatic or asymptomatic children with suspected COVID-19 An initial chest radiograph may be appropriate for children with moderate to severe symptoms, and a chest CT scan may be warranted if the results could affect clinical management. A series of chest radiographs may be useful to assess therapeutic response, evaluate clinical worsening, or determine positioning of life support devices.

Post-recovery imaging may be appropriate for asymptomatic children who initially had moderate to severe illness and who may be at risk for long-term lung injury. In addition, follow-up imaging may be warranted for children with persistent or worsening symptoms regardless of the severity of the initial illness.

Treatment

Supportive care

Among the recommendations are bed rest and ensuring sufficient calorie and water intake. Oxygen therapy is recommended for patients with hypoxia. Antibiotics should generally be reserved for children with bacterial co-infection. Immunity boosters in form of vitamins A,C,D and zinc may be helpful. Paracetamol to alleviate the bodyache and febrile conditions .

Separation of mother and newborn

If possible, mothers with COVID-19 should be separated from their newborns upon birth. These newborns should be kept in an area that is separate from other infants. Families who opt to keep the newborn near the mother should be educated concerning the potential risks of SARS-CoV-2 transmission.

Following birth, newborns born to mothers with COVID-19 should be bathed to remove virus from the skin. Mothers with COVID-19 may express breast milk after appropriate hand and breast hygiene to be fed to the newborn by caregivers without COVID-19.

Breastfeeding can be given after proper hand hygiene and use of mask by mother while feeding the baby.

After discharge from the hospital, mothers with COVID-19 should stay at least 6 feet away from their newborns. If a closer proximity is required, the mother should wear a mask and observe hand hygiene for newborn care until (1) her temperature has normalized for 72 hours without antipyretic therapy and (2) at least 1 week (7 days) has passed since the onset of symptoms.

Vaccines typically require years of research and testing before reaching the clinic, but scientists are racing to produce a safe and effective coronavirus vaccine by next year. Researchers are testing 46 vaccines in clinical trials on humans . The first vaccine safety trials in humans started in March, and now 10 have reached the final stages of testing. But a few vaccines may succeed in stimulating the immune system to produce effective antibodies against the virus. While these vaccines may potentially prevent infection, they cannot cure the disease.

Morbidity

Although most children infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) have either asymptomatic infection or mild illness, severe illness has been reported in 2.5% of pediatric cases. Most children with COVID-19 recovered within 1-2 weeks after the onset of symptoms. Children younger than 1 year of age accounted for the highest percentage of hospitalizations

Multisystem inflammatory syndrome in children

Symptoms are reminiscent of Kawasaki disease, atypical Kawasaki disease, or toxic shock syndrome. All patients had persistent fevers, and more than half had rashes and abdominal complaints. Interestingly, respiratory symptoms were rare .

Many patients did not have polymerase chain reaction (PCR) results that were positive for COVID-19, but many had strong epidemiologic links with close contacts who tested positive. Furthermore, many had antibody testing that was positive for SARS-CoV-2. These findings suggest recent past infection, and this syndrome may be a post-infectious inflammatory syndrome.

Children and adolescents with MIS-C frequently presented with gastrointestinal symptoms . Cardiac involvement (including coronary artery aneurysms in 10-20% of patients) and elevated levels of inflammatory markers, such as CRP, D-dimer, and troponin, were common .

Mortality :

Children represented only 10.7% of all cases of covid. COVID-19-associated hospitalization and death is uncommon in children. Severe illness due to COVID-19 is rare among children . Between 0.3%-7.5% of all child COVID-19 cases resulted in hospitalization. Children were 0%-0.23% of all COVID-19 deaths.

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COVID -19 CONVALESCENT PLASMA THERAPY (CCP)

Dr. Aparna Shirudkar Bagul

CCP therapy is an investigational therapy in which plasma obtained from a recovered COVID - 19 patient is transfused to patients with moderate to severe SARS – CoV-2 infection.

The rationale behind this therapy is that the recovered patients have significant antibodies to SARS-CoV-2 virus which can be a means of passive immunization to improve clinical outcomes in patients with infection.

The convalescent plasma is collected by the procedure of Plasmapheresis.

CCP therapy has been allowed currently only as an " off - label "use (unapproved indication) of plasma in COVID -19 patients by the Govt. of India.

Eligibility criteria for the CCP Donor :

1. Males or Nulliparous females
2. Age group 18-60yrs
3. Weight more than 55 kg
4. Prior diagnosis of COVID -19 documented by a laboratory test
5. Recovered COVID-19 patient can be accepted 28 days after a negative RT-PCR test report for SARS-CoV-2 infection or 28 days after complete resolution of symptoms
6. Donor should be advised to donate not more than twice a month
7. In addition, the routine donor eligibility criteria for whole blood / apheresis donation will be followed in accordance to the Drugs & Cosmetics Act 1940 & rules there in (as amended till March 2020)

Pre-Donation Screening & Testing :

1. Complete Blood Count (CBC)
2. ABO & Rh D Blood grouping
3. Antibody Screening for minor Blood Groups
4. Testing for TTD (Transfusion Transmissible Diseases) – Anti HIV 1 &2, Anti HCV, HBsAg, Malaria & Syphilis
5. Serum Proteins
6. Anti – SARS-CoV-2 IgG Antibodies

Procedure :

Plasmapheresis is carried out on Automated Cell Separator. A written informed consent of the donor is taken before the procedure.

Storage :

CCP is stored at temperature < -30 deg. Celsius.

CCP Recipient :

1. Request form for CCP for recipient is received from the Hospital along with the recipient's blood sample
2. Blood grouping of the recipient is performed
3. Minor Crossmatching using Donor plasma and Recipient red blood cells is performed
4. If the unit is compatible, it can be issued for recipient use
5. Recipient should not have Ig A deficiency or allergy to Immunoglobulin
6. Plasma should be transfused slowly over not less than two hours
7. Recipient should be closely monitored for several hours post transfusion for any transfusion related adverse effects

Compatibility of CCP as per ABO Blood group & Rh type

Patient Blood Group	Donor Blood Group
A	A, AB
B	B, AB
AB	AB
O	O, A, B, AB
Rh Positive	Rh Positive, Rh Negative (Provided anti – D antibodies are not present in Rh Negative donor)
Rh Negative	Rh Positive, Rh Negative (Provided anti – D antibodies are not present in Rh Negative donor)

Donor Search :

Search for voluntary , non-remunerated COVID – 19 recovered patients willing for CCP donation , should be made through social media platforms and various NGOs which are maintaining a data-base of the persons who have recovered from COVID-19 disease.

Reference :

- Guidance document on COVID-19 Convalescent Plasma Therapy – ISTM – CCP working group
- Protocol by DGHS, CDSCO- Convalescent Plasma in COVID-19
- DGHS Manual Second Edition

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CORONA : ROAD SO FAR AND WHEN WILL IT END?

Dr. Ramchandra Goyal[1], Dr. Deodatt Suryawanshi[2]
1.Head, Community Health, 2. Associate Professor, Dept. of Community Medicine
Trichy SRM Medical College Hospital and Research Center, Trichy, Tamilnadu

Introduction:

The World Health organisation (WHO) for the sixth time declared Public Health Emergency of International Concern (PHEIC) in the last decade. Last PHEIC has been declared on 30th January 2020, COVID-19 , the disease caused by SARS COV-2 is a as it constitutes a public health risk to other States through the international spread and further requires a coordinated international response under the International Health Regulations (2005 revised) [1,2].

Regarding the Origin of the SARS COV-2 virus it is hypothesised to have originated from the Wuhan sea food market of Hubei province in China where the virus would have passed from the reservoir bats to an intermediary host like pangolin and then to humans subsequently leading to clustering of Cases of Pneumonia of unknown aetiology during the late December 2019 and early January 2020 [3,4].

As of January 22, 2020, China had reported 571 cases of Pneumonia of Unknown aetiology [5].It was estimated that nearly 5 million people arrived in the city of Wuhan from different parts of the globe for the celebration of annual spring festival held January 25,2020 [6].The bigger culpability here is of the authorities though being mindful of a rapidly spreading disease allowed the influx of passengers. The timing of the outbreak before the Spring festival, and the transportation hub located in Wuhan accelerated the spread of COVID-19 not only to China but also in different parts of the globe [6,7].Following the next month Chinese authorities used draconian measures to curtail the spread of the disease, locking in its population and escalating testing[7]. This led to peaking of the epidemic as early as February 12,2020 followed by rapid decline so as by March 8,2020 only 40 new cases were reported in mainland china. Till today China's official reported of cases stand well below 100,000 mark with 4,634 deaths as [8].

On 30 January 2020, India reported its first case of COVID-19 in Kerala, of a 20-year-old medical student who just came back from Wuhan in China [9]. Apart from these, no significant rise in transmissions was observed in February 2020. In India, since March 4, 2020 the trend of daily COVID-19 cases has been on rise and continue to be on 2nd place with total cases 74,32,680 and deaths 112998 (as on 17th October 2020) of Overall COVID-19 cases following US[10].

Problem Statement, Geography and Vulnerability:

As of 15th October 2020, the number of COVID-19 continues an upward trend with 38,517,186 cases reported worldwide [10]. Burden of COVID-19 cases Northern hemisphere are more than southern hemisphere [11]. Temperate latitude shows more cases as compared to Tropics[11]. Temperature less than 20-degree favours spread of SARS COV-2[11].Demography Factor like population densities, proportion of slum population have shown a positive correlation with COVID-19 case burden [12,13].

Total deaths worldwide stood 1,093,548, with US reporting the most deaths followed by Brazil and India. India reported 1, 11,266 deaths with a case fatality ratio of 1.32% compared to a worldwide case fatality ratio of 1.52% [10]. In top ten countries with highest population and more than 1 lakh cases India has one of the lowest case fatality ratio[14]. Countries reporting more than 1 lakh cases countries with high case fatality ratio include Mexico (10.2%), Italy (9.5%), Ecuador (8.2%), UK (6.4%) and Bolivia (6.0%)[14]. Higher Case fatality ratio in these countries can be attributed because of late imposition of lockdown, low testing rates, high age profile of the affected population and high population densities [15,16] .

In India, all states and union territories have reported COVD-19 cases, the top ten states account for 80 % of cases and 85 % of deaths. Maharashtra tops the state list with highest number of cases (15, 64,615) and deaths (41,196) followed by Andhra Pradesh [17]. During the initial part of the pandemic, cases were concentrated in districts with international airports where a significant difference was observed in COVID cases in district

with International Airports (p<0.039) and those without it[13]. Migration, post lockdown would have led to more redistribution of cases in most parts of the country. Analysing vulnerability of Indian states on various socioeconomic, demographic and epidemiological factors proved that the states of Bihar, Madhya Pradesh, Telangana, Jharkhand, Uttar Pradesh, Maharashtra, West Bengal, Odisha, and Gujarat were Vulnerable to COVID -19 impact and availability of health-care facility correlated most strongly with overall vulnerability (*R* values of 0·70 and 0·68, respectively), followed by socioeconomic factors (*R*=0·41) and epidemiological factors (*R*=0·39)[18].

Response : Global and India

The Global response to the epidemic, though being delayed was spearheaded and calibrated by the WHO when it first declared COVID-19 as PHEIC on 30th January of COVID and then subsequently a pandemic on 11th March 2020 19. This declaration led to travel ban to China and restriction on international travel and quarantine of suspected individuals. It also urged governments to detect, test, treat, isolate, trace, and mobilize their people in the response to the pandemic19.

WHO helped countries to prepare and respond through their Strategic Preparedness and Response Plan, Providing accurate information, busting dangerous myths, Ensuring vital supplies reach frontline health workers Training and mobilizing health workers, Effective treatment and the search for a vaccine20.

India has robust institutional mechanisms to deal with disasters. The Disaster management act of 2005 empowers the government to take necessary steps to prepare, prevent, mitigate, delegate and streamline activities related to management of a disaster .On 11th march 2020, the Ministry of Home affairs under section 69 of the act delegated its power to the Ministry of Health and family welfare under specific clauses of the act for preparedness and containment of COVID-1921. Also on 11th March, the cabinet secretary of India announced that all states and Union territories should invoke provisions of Section 2 of the Epidemic Diseases Act, 1897 which will help contain spread of the disease22. The Epidemic act 1897 provides a strong legal framework for containment of the epidemic with enforcement of strong punitive measures against offenders23.

During the present pandemic while the Ministry of Health and Family Welfare (MOHFW) provided the leadership, coordination, direction and insight, the Indian Council of Medical Research provided the necessary technical guidance. The ICMR role in the pandemic management was diverse as it range from providing guidelines on public health

Table no 1. COVID-19: Milestones and Burden -India and the World.

	Burden	
Milestones in COVID-19 Pandemic	**India Cases (Case Fatality Rate %)**	**Worldwide Cases (Case Fatality Rate %)**
30th January -WHO declares COVID-19 PHEIC	0(0)	7900(2.1)
11th March 2020-WHO declares COVID-19 as pandemic	62(0)	128087(3.4)
24th March -India announces lockdown	486(2.0)	395790(4.7)
1 may -Migrants allowed to return	37,257(3.2)	3190851(7.2)
1st June - Unlock 1.0	1,98,370(2.8)	6064031(6.1)
1st July - Unlock 2.0	6,05,220(2.9)	10330875(4.8)
1st August - Unlock 3.0	17,51,919(2.1)	17109587(3.9)
1st September - Unlock 4.0	37,66,108(1.7)	25367801(3.3)
1st October -Unlock 5.0	63,91,960(1.5)	33866280(2.9)

measures, cluster containment, clinical management, upscaling testing, accreditation of labs, research and modelling and most importantly rolling out for the indigenous COVAXIN manufactured by Indian PSU Bharat Biotech for field testing.

To avert an economic and humanitarian catastrophe and to save millions of people's lives and livelihoods various Government announced special economic packages to fight the pandemic.

The World Bank responded rapidly with 53 new COVID 19 loans between April 2 and April 30, totalling $2.7 billion and ranging from $2.5 million loans to the Marshall Islands and Sao Tome and Principe to a $1 billion loan to India 24.

Various governments announced significant stimulus packages to assist and mitigate COVID-19 measures, stimulate demand and bring back the economy on path of faster recovery. India announced stimulus package worth 10% of GDP, US 11% , China 2.5% ,Japan 21 % GDP and Germany 10.7% of its GDP 25.

Impact of COVID-19

Most Government worldwide responded to the pandemic with Travel restrictions, social distancing and complete lockdown measures. Complete lockdown measures intended to reduce the spread of the SARS COV-2 virus brought in non-intended economic, social and psychological consequences.

Economic Impact

Non-intended Economic consequences on the Indian economy included loss over Rs.32,000 crore (US$4.5 billion) every day during the first 21 days of the lockdown as estimated by to Acuité Ratings 25. Economic activity in India fell from 82.9 on 22 March to 44.7 on 26 April 2020 26 ,while unemployment rate rose from 6.7% on 15 March to 26% on 19 April with an estimated 14 crore Indians losing employment mostly in informal sectors and more than 45% reported an income drop as compared to the previous year26,27,28. Various business ,supply chains and logistic were affected and many private institution cut salaries and laid off employees 30.The sequalae to the lockdown include a 23 % contraction of GDP in Quarter 1 (YOY)31 with the IMF predicting India's economy to contract by 4.5% in FY2132 .

Social Impact

The domino effect caused by the pandemic lockdown is difficult to gauge in social sectors. Pandemic impacted unequal's unequally where the economic downturn greatly affected people from the lower socio-economic stratum (SES). The distressing media visuals of migrant labourers while going to their native places from the cities on foot during the lockdown were heart wrenching33. Remittance of money to the home country, which many migrant Indian workers popularly do, is another way of poverty reduction, economic development and increase in GDP, this came to standstill33.

The Observer research foundation (ORF) observed that there was a massive socio-economic impact post Lockdown .Common socio-economic impacts of COVID-19 were reduced workforce across all economic sectors, School closure and disruption of play for children, Decreased demand for commodities and manufactured product, Increased demand in food sector, Panic-buying and stockpiling of food products, xenophobia against specific ethnic/geographic groups, COVIDI-ZATION" of academic research: under-mining other areas of research and scholarship and poor people, homeless people, refugees, migrants are disproportionately affected by the health and economic impacts of COVID-19 34.

Psychological impact of the COVID-19 pandemic

The Pandemic left everyone with fear, despair and agony and helplessness. Psychological impact of COVID-19 is intangible and unfathomable. Acute panic attacks , Stress, fear and anxiety during physical distancing seen in children and adults, Obsessive compulsive disorders ,hoarding ,Paranoia, Depression and Post-traumatic stress disorder (PTSD) in the long run are few psychological effects to mention 34.

Is the end near?

Last 4 weeks India has noticed a drop in daily new infections. As of 15th September, the daily infections were 91,120 with 1283 deaths. On October 15 new cases reported were 60,439 and 835 deaths a decrease of 33 % cases and 34% deaths 35.

The Reproductive number (R0) has also shown a decline from 1.83 in April to 0.92 as on 2nd week of

October 36,37.

Can we conclude that we have reached a peak and started a declining trend and worse is over for India? This question can only be answered if we have facts to support our claim.

Firstly, ICMR second Sero-survey published in late September estimates that presently there was 7 % of adult population infected is with SARS COV-2 with the infection to case ration of 26 to 32 . There are still 93 % of adults who remains at varying degree of COVID-19 infection risk without vaccine and appropriate social distancing measures 38.

Secondly ,definitive effective treatment against SARS COV-2 is still a mirage .Researchers all over the world are repurposing drugs which can be effective against SARS COV-2.Hydroxy choloroquine which showed efficacy against SARS COV-2 39-41was included in the solidarity trail conducted by WHO is still used as chemoprophylaxis for health care workers in India 42. The combination therapy of Doxycycline -Ivermectin has shown promising results in clinical trials conducted in Dhaka43,44. Drugs like Remdesivir used in treatment for Ebolavirus has also be shown to efficacious in treatment of SARSCOV-2 infection 45. Dexamethasone which came as a saviour under the recovery trail reduced the mortality in severe patients with COVID-19 46. All these drugs form a part of COVID management protocol In India. A moment of despair has set in when the WHO reported that the drugs tested in the solidarity trail Remdesivir, Hydroxy chloroquine, Lopinavir (fixed-dose combination with Ritonavir) and Interferon-β1a have little or no effect on hospitalized COVID-19 patients 47.With no definitive treatment at sight and failure of some repurposed drugs it seems now that vaccine is the only hope against COVID-19.

WHO has reported that there more than 100 COVID-19 vaccine candidates under development, with a number of these in the human trial phase. It is working in collaboration with scientists, business, and global health organizations through the ACT Accelerator (access to COVID tools) to speed up the pandemic response. When a safe and effective vaccine is found, COVAX (led by WHO, GAVI and CEPI) will facilitate the equitable access and distribution of these vaccines to protect people in all countries 48.

To date, just two coronavirus vaccine has been approved. Sputnik V and EpiVac Corona approved by the Ministry of Health of the Russian Federation. Experts have raised considerable concern about the vaccine's safety and efficacy given both of them have not yet entered Phase 3 clinical trials. Operation Warp Speed (OWS) a collaboration of several US federal government departments - has selected three vaccine candidates to fund for Phase 3 trials: Moderna's mRNA-1273, University of Oxford and AstraZeneca's AZD1222, and Pfizer and BioNTech's BNT162 48.

In India, University of Oxford AstraZeneca vaccine which is currently undergoing Phase 2/3 trails which has partnered with Serum Institute of India (SII) to manufacture the Oxford COVID-19 vaccine candidate for low-and-middle income countries 49. Serum Institute of India is to produce up to 100 million COVID-19 vaccine doses for India and low- and middle-income Countries as early as 202150.Serum Institute of India is also conducting phase III clinical trial of BCG vaccine candidate VPM1002 to evaluate its ability in reducing infection and severe disease outcomes of COVID-19 among high-risk persons of advanced age, comorbidities and high-exposure healthcare workers (HCWs) 51.

COVAXIN, India's indigenous COVID-19 vaccine developed by Bharat Biotech is developed in collaboration with the Indian Council of Medical Research (ICMR) - National Institute of Virology (NIV) is an inactivated vaccine given in two doses 14 days apart is currently undergoing phase 2 trails having demonstrated robust immunity development in rhesus macaques52.

These vaccines will take early next year followed by their production. Here the concept of Vaccine governance needs to be emphasised .Vaccine governance include all the activities done by the government to ensure ease of manufacturing, procurement ,supply and logistics, prioritisation within the accepted principles of universal Health care. The Five "E" s of Effectiveness , Economics, Ethics ,Equity and End-Evaluation will be instrumental in Vaccine Governance in the coming years.

Conclusion:

COVID-19 has emerged as a global threat with

human beings sufferings in terms of morbidity and mortality, and the enormous economic, psychological and social impact. The whole world is trying hard to combat this pandemic, however expect results has not been seen so far. Until definite solution like Vaccine against COVID 19 , required herd immunity and definitive treatment is available , it's responsibility of each and every person to fight with CORONA Virus. This can only be achieved by human behaviour change directed towards the following strategies:

1. Social distancing minimum 6 feet between the persons.
2. Wear mask as routine practice.
3. Avoid closed space, crowded place, close contact, indoor& outdoor gatherings
4. Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water.
5. Avoid touching your eyes, nose and mouth.
6. Follow good 'respiratory hygiene' and cough etiquettes
7. Clean and disinfect surfaces frequently especially those which are regularly touched,
8. Know the full range of symptoms of COVID-19 and report to nearby Health care agency and seek early treatment.
9. Create awareness among others.
10. DO NOT DISCRIMINATE COVID-19 PATIENTS.

References :

1. COVID-19 Public Health Emergency of International Concern (PHEIC) Global research and innovation forum [Internet]. World Health Organization. World Health Organization; [cited 2020Oct16]. Available from: https://www.who.int/publications/m/item/COVID-19-public-health-emergency-of-international-concern-(pheic)-global-research-and-innovation-forum
2. International Health Regulations and Emergency Committees [Internet]. World Health Organization. World Health Organization; [cited 2020Oct16]. Available from: https://www.who.int/news-room/q-a-detail/international-health-regulations-and-emergency-committees.
3. Origin of SARS-CoV-2 [Internet]. World Health Organization. World Health Organization; [cited 2020Oct16]. Available from: https://www.who.int/publications/i/item/origin-of-sars-cov-2 .
4. Andersen KG, Rambaut A, Lipkin WI, Holmes EC, Garry RF. The proximal origin of SARS-CoV-2. Nature Medicine. 2020;26(4):450–2.
5. China [Internet]. Worldometer. [cited 2020Oct16]. Available from: https://www.worldometers.info/coronavirus/country/china
6. Zhong P, Guo S, Chen T. Correlation between travellers departing from Wuhan before the Spring Festival and subsequent spread of COVID-19 to all provinces in China. Journal of Travel Medicine. 2020;27(3).
7. Shi Q, Dorling D, Cao G, Liu T. Changes in population movement make COVID-19 spread differently from SARS. Social Science & Medicine. 2020;255:113036.
8. China [Internet]. Worldometer. [cited 2020Oct16]. Available from: https://www.worldometers.info/coronavirus/country/china/.
9. Coronavirus India timeline: Tracking crucial moments of COVID-19 pandemic in the country [Internet]. The Indian Express. 2020 [cited 2020Oct16]. Available from: https://indianexpress.com/article/india/coronavirus-COVID-19-pandemic-india-timeline-6596832/
10. COVID-19 Map [Internet]. Johns Hopkins Coronavirus Resource Center. [cited 2020Oct16]. Available from: https://coronavirus.jhu.edu/map.html
11. Chennakesavulu K, Reddy GR. The effect of latitude and PM2.5 on spreading of SARS-CoV-2 in tropical and temperate zone countries [Internet]. Environmental Pollution. Elsevier; 2020
12. Kadi N, Khelfaoui M. Population density, a factor in the spread of COVID-19 in Algeria: statistic study. Bull Natl Res Cent. 2020;44(1):138.
13. Suryawanshi DM, Venugopal R, Goyal R. Factors influencing COVID-19 case burden and fatality rates findings from secondary data analysis of major urban agglomerations in India. International Journal Of Community Medicine And Public Health. 2020;7(8):3284.
14. Coronavirus Cases: [Internet]. Worldometer. [cited 2020Oct16]. Available from: https://www.worldometers.info/coronavirus/.
15. European Case-Fatality Rates beyond lockdown and the UK's outlier status [Internet]. CEBM. 2020 [cited 2020Oct16]. Available from: https://www.cebm.net/COVID-19/european-case-fatality-rates-beyond-lockdown-and-the-uks-outlier-status/.
16. Rocklöv J, Sjödin H. High population densities catalyse the spread of COVID-19. Journal of Travel Medicine. 2020;27(3).
17. Coronavirus in India: Latest Map and Case Count [Internet]. Coronavirus Outbreak in India. [cited 2020Oct16]. Available from: https://www.COVID19india.org/.
18. Acharya R, Porwal A. A vulnerability index for the management of and response to the COVID-19 epidemic in India: an ecological study. The Lancet Global Health.

2020;8(9).

19. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020 [Internet]. World Health Organization. World Health Organization; [cited 2020Oct16]. Available from: https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-COVID-19---11-march-2020

20. 5 reasons the world needs WHO, to fight the COVID-19 pandemic | | UN News [Internet]. United Nations. United Nations; [cited 2020Oct16]. Available from: https://news.un.org/en/story/2020/04/1061412.

21. Ministry of Health and Family Welfare [Internet]. MoHFW. [cited 2020Oct16]. Available from: https://www.mohfw.gov.in/.

22. To combat coronavirus, India invokes provisions of colonial-era Epidemic Diseases Act: A look at what this means - Health News , Firstpost [Internet]. Firstpost. 2020 [cited 2020Oct16]. Available from: https://www.firstpost.com/health/to-combat-coronavirus-india-invokes-provisions-of-colonial-era-epidemic-act-all-you-need-to-know-8142601.html

23. Epidemic Diseases Act, 1897 [Internet]. India Code. 1897 [cited 2020Oct16]. Available from: https://www.indiacode.nic.in/handle/123456789/2326?sam_handle=123456789%2F1362.

24. Aid effectiveness during the COVID-19 pandemic: This time it must be better [Internet]. World Bank Blogs. [cited 2020Oct16]. Available from: https://blogs.worldbank.org/developmenttalk/aid-effectiveness-during-COVID-19-pandemic-time-it-must-be-better.

25. How does India's COVID-19 package compare to spending by other countries? [Internet]. Hindustan Times. 2020 [cited 2020Oct16]. Available from: https://www.hindustantimes.com/india-news/how-does-india-s-COVID-19-package-compare-to-spending-by-other-countries/story-tM8KHsVSE98iBvMdQN3JgI.html.

26. Bureau O. COVID-19 lockdown estimated to cost India $4.5 billion a day: Acuité Ratings [Internet]. @businessline. The Hindu BusinessLine; 2020 [cited 2020Oct16]. Available from: https://www.thehindubusinessline.com/economy/COVID-19-lockdown-estimated-to-cost-india-45-billion-a-day-acuit-ratings/article31235264.ece.

27. Economy Picks Up Pace in Sept, But COVID Looms [Internet]. [cited 2020Oct16]. Available from: https://www.eepcindia.org/download/Economy-picks-up-ET-20200915093655.pdf

28. Vyas M. Lockdown 2.0: Unemployment rate touches 26% amid COVID-19 outbreak [Internet]. Business Standard. Business-Standard; 2020 [cited 2020Oct16]. Available from: https://www.business-standard.com/article/opinion/unemployment-rate-touches-26-per-cent-120042001081_1.html.

29. Research C for P. Podcast: How has India's lockdown impacted unemployment rates and income levels? [Internet]. Scroll.in. Scroll.in; 2020 [cited 2020Oct16]. Available from: https://scroll.in/article/959756/podcast-how-has-indias-lockdown-impacted-unemployment-rates-and-income-levels.

30. India's unemployment rate hits 26% amid lockdown, 14 crore lose employment: CMIE [Internet]. Business Today. 2020 [cited 2020Oct16]. Available from: https://www.businesstoday.in/sectors/jobs/india-unemployment-rate-hits-26-amid-lockdown-14-crore-lose-employment-cmie/story/401707.html

31. Misra U. India GDP growth contracts 23.9%: What is the economics behind the math? [Internet]. The Indian Express. 2020 [cited 2020Oct16]. Available from: https://indianexpress.com/article/explained/gdp-contraction-23-9-the-economics-behind-the-math.

32. World Economic Outlook Update, June 2020: A Crisis Like No Other, An Uncertain Recovery [Internet]. IMF. 2020 [cited 2020Oct16]. Available from: https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020 International Monetary Fund. A Crisis Like No Other, An Uncertain Recovery.World Economic outlook 2020.

33. Gopalan HS, Misra A. COVID-19 pandemic and challenges for socio-economic issues, healthcare and National Health Programs in India. Diabetes Metab Syndr. 2020;14(5):757-759.

34. Sanjay Bhattacharya, "The Social Impact of the COVID-19 Pandemic," ORF Issue Brief No. 406, October 2020, Observer Research Foundation.

35. India [Internet]. Worldometer. [cited 2020Oct16]. Available from: https://www.worldometers.info/coronavirus/country/india/

36. Basu M. India's COVID R value falls to lowest so far at 0.92, West Bengal & Rajasthan concern areas [Internet]. ThePrint. 2020 [cited 2020Oct16]. Available from: https://theprint.in/health/indias-COVID-r-value-falls-to-lowest-so-far-at-0-92-west-bengal-rajasthan-concern-areas/523497/

37. Basu M, here Penter your name, - HC, - PK, - JY. At 1.08, R value dips slightly this week, India could cross 12 lakh active cases by October [Internet]. ThePrint. 2020 [cited 2020Oct16]. Available from: https://theprint.in/health/at-1-08-r-value-dips-slightly-this-week-india-could-cross-12-lakh-active-cases-by-october/504082/.

38. ICMR's second nationwide serosurvey shows big jump in COVID-19 exposure, better testing rates in August vs May - India News , Firstpost [Internet]. Firstpost. 2020 [cited 2020Oct16]. Available from: https://www.firstpost.com/india/icmrs-second-nationwide-serosurvey-shows-big-jump-in-COVID-19-exposure-better-testing-rates-in-august-vs-may-8864871.html.

39. Liu J Cao R Xu M et al. Hydroxychloroquine, a less toxic derivative of chloroquine, is effective in inhibiting SARS-CoV-2 infection in vitro. Cell Discov. 2020; 6: 16

40. Gao J Tian Z Yang X Breakthrough: Chloroquine phosphate has shown apparent efficacy in treatment of COVID-19 associated pneumonia in clinical studies. Biosci Trends. 2020; 14: 72-73.

41. Gautret P Lagier JC Parola P et al. Hydroxychloroquine

and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial. Int J Antimicrob Agents. 2020.

42. R Karim HM, Ahmed G. Hydroxychloroquine prophylaxis for SARS-CoV-2 infection among healthcare workers. Indian J Med Res. 2020 Jul & Aug;152(1 & 2):119-120.

43. Clinical Trial of Ivermectin Plus Doxycycline for the Treatment of Confirmed COVID-19 Infection - Study Results [Internet]. Study Results - ClinicalTrials.gov. [cited 2020Oct16]. Available from: https://clinicaltrials.gov/ct2/show/results/NCT04523831.

44. Abu Taiub Mohammed Mohiuddin Chowdhury, Mohammad Shahbaz, Md Rezaul Karim et al. A Randomized Trial of Ivermectin-Doxycycline and Hydroxychloroquine-Azithromycin therapy on COVID19 patients., 14 July 2020, PREPRINT (Version 1) available at Research Square.

45. Spinner CD, Gottlieb RL, Criner GJ, et al. Effect of Remdesivir vs Standard Care on Clinical Status at 11 Days in Patients With Moderate COVID-19: A Randomized Clinical Trial. JAMA. 2020;324(11):1048–1057.

46. RECOVERY Collaborative Group, Horby P, Lim WS, Emberson JR, Mafham M, Bell JL et al. Dexamethasone in Hospitalized Patients with COVID-19 - Preliminary Report. N Engl J Med. 2020 Jul 17.

47. Hongchao Pan, Richard Peto, Quarraisha Abdool Karim, Marissa Alejandria, Ana Maria Henao Restrepo, 20209817Repurposed antiviral drugs for COVID-19; interim WHO SOLIDARITY trial results. WHO Solidarity Trial Consortium, medRxiv 2020.10.15.

48. The push for a COVID-19 vaccine [Internet]. World Health Organization. World Health Organization; [cited 2020Oct16]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/COVID-19-vaccines?gclid=EAIaIQobChMItJCg75S57AIVF6qWChovPgPJEAAYASAAEgLHRfD_BwE

49. Serum Institute to resume Oxford COVID-19 vaccine trial after DCGI's nod [Internet]. mint. 2020 [cited 2020Oct16]. Available from: https://www.livemint.com/news/india/serum-institute-to-resume-oxford-COVID-19-vaccine-trial-after-dcgi-s-nod-11599926382690.html

50. Serum Institute of India to produce up to 100 million COVID-19 vaccine doses for India and low- and middle-income Countries as early as 2021 [Internet]. Serum Institute Of India. [cited 2020Oct16]. Available from: https://www.seruminstitute.com/news_gavip_partnership_annoucement.php

51. Bharat Biotech-Vaccines & Bio-Therapeutics Manufacturer in India. [cited 2020Oct16]. Available from: https://www.bharatbiotech.com/covaxin.html.

52. Basu M. Covaxin produced 'robust' immune response in monkeys, ICMR paper says [Internet]. ThePrint. 2020 [cited 2020Oct16]. Available from: https://theprint.in/health/covaxin-produced-robust-immune-response-in-monkeys-bharat-biotech-says/502188/ Covaxin produced ‘robust’ immune response in monkeys, ICMR paper says .

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BLOG ON COVID 19 - MY TELECONSULTATION EXPERIENCE

Dr Arvind Bengeri
Practising as Senior Family Physician and Family Diabetologist
At Kulkarni Specialty Care Centre, Bengaluru since 3 years

Hello Dear IMA friends & colleagues,

It's nice to contact & communicate with you all after 3 years. I really miss IMA Dombivli and it's programs. I have tried to write my experience in treating covid cases online. In last 40 yrs of my clinical practice treating patients by teleconsultation / video teleconsultation is totally a new experience and challenging.

Since lockdown I am doing teleconsultation mainly for diabetes hypertension IHD hypothyroidism GI complaints etc. For first 3 months I didn't treat any covid case as the cases were low during that period in our locality

If at all any person with fever called me I used to refer them to fever clinics out of fear (as I am 65 yrs !!) and due to strict govt guidelines. From July onwards the covid numbers started increasing. So many people started calling me for treatment

Treating and guiding covid cases online is another big challenge ... because people don't believe... convincing very difficult. Those whom I treated were in home quarantine and had mild to moderate symptoms.....few were with comorbidities .... refusing to get admitted.... due fear of isolation ... cannot meet any kith or Kins...So monitoring was a tough proposition, convincing was difficult... as it was teleconsultation calling everyone daily asking for reports... pulse oxymeter readings... 6 minutes walk tests .....BP... temp... blood glucose readings .... advising dos and donots.

Totally around 50 cases ....I have either treated or advised hospital admission. For home treatment following gadgets are very useful ;

Pulse oxymeter

Thermometer

BP machine (BP Pt's)

Glucometer (diabetic pts)

Used to ask for Basic investigations like

CBC ESR MP Dengue test Urine R CRP S creatinine

FBS PPBS HBA1C (if diabetic)

CRP is a very good marker very useful .... all with high CRP invariably turned out to be covid positive. HRCT is another very useful test to rule out viral (covid) pneumonia and can decide whether admission is necessary depending on CT scan scores. Out of 50 ... 30 males ... 20 females, 16 were with co-morbidities like diabetes BP heart trouble etc. Unfortunately lost 4 persons 3 male 1 female as all had cytokine storm during Hosptial stay

Out of this 3 were senior citizens with diabetes hypertension and heart trouble. One young male 28 yrs of age ...my cousin's son ....Unmarried...who unfortunately died... had history of drowsiness weakness tiredness.... taken to hospital for check up.... had sudden spike of fever convulsions... admitted.... CT scan of brain showed stroke

CT chest.... bilateral pneumonia... treated for 8 days.... unfortunately succumbed with sudden drop in oxygen.... covid positive. 34 cases had either fever dry cough throat pain like symptoms, 4 had fever for 8-10 days. One young person fever for 10 days all blood & urine reports normal covid negative. Final test ...HRCT revealed viral pneumonia... treated at home full recovery

A middle aged lady called me for teleconsultation for history of acidity and gas trouble ... told her to do video call.... which was really useful.... the lady was talking as if she was breathless.... SPO2 was surprisingly above 95% .....asked her to get all routine investigations done ....CRP high .... HRCT showed viral pneumonia ....CT score ...11/25 covid positive ...treated at home with antibiotics antivirals etc ... fully recovered

(In most cases of teleconsultation I usually ask or request for video teleconsultation which is very useful as you can make lot of observations)

3 patients with co-morbidities diabetes hypertension IHD refused get admitted out of fear..... fear of isolation .....fear of death.... they think they will not come back home ..... will be on ventilator etc.... negative publicity in press and society creating this fear. Surprisingly all three

recovered at home with doxycycline ivermectin azithromycin antivirals steroids and most importantly aspirin with statin

One of them had even SPO2 going down to 89%. She was treated at home with antivirals and antibiotics..... fully recovered. 3 senior citizens with comorbidities had high fever .... high fever.... dangerous sign.... requires admission at the earliest... all three had cytokine storm... unfortunately one did not survive

A lady senior citizen(with diabetes hypertension IHD obesity) had cold & cough took self medication .... after one week developed very high fever with cyanosis delirium ...called me .... advised urgent admission.... admitted in a nursing home .... covid rapid test negative.... given oxygen as SPO2 had gone below 95% .... general antibiotics given ... no relief.... advised to shift to bigger hospital.... SPO2 went below 90% bilateral patches on X-ray chest and HRCT.

Rt PCR test +ve started ..oxygen ..steroids remedesvir inj .... recovered fully after 11 days. Another middle aged male had history of backache .... went to hospital to show his aged father who had a fall at home ... both turned out to be covid positive and bilateral viral pneumonia.... treated successfully... back home.

One lady diabetic had hypoglycaemia... her husband called me at 530 am on Sunday morning .... wife feeling drowsy... semiconscious like .... RBS -39 mg told them to give oral glucose.... after some time Became fully alert ... solid food given .... no cough no fever nothing.... recovered from hypoglycaemia... 3 rd day sudden SPO2 drop ... investigations done .... viral pneumonia.

Not willing for admission treated at home. One case of post covid complications -middle aged man with diabetes hypertension.... had cough throat pain ... contact with covid +ve uncle & aunt. Covid test negative... treated with azithromycin doxycycline ambroxol monteleucast etc recovered fully .... after one month history of chest congestion.... SPO2 below 95% ... did HRCT.... post viral bronchiactasis seen ... under treatment now.

Many of those admitted were treated with Oxygen

Steroids

Remedesvir

Low molecular heparin inj etc

Some of the senior citizens with co-morbidities who recovered fully were on Ecosprin AV75.

There was a article in news paper recently where in at Oxford medical college.... autopsy done on covid pneumonia case... firm lung tissue with extensive intravascular embolism.

So Ecosprin with statin is helping in preventing this dreaded complication.

Non covid cases;

Did teleconsultation for 2 non covid emergency cases ...were both elderly .... history of left arm pain in one case ... neck pain and sweating in another case both in the night and midnight....

Advised Aspirin clopidogrel stat .... urgent admission.... both had coronary block .... underwent angioplasty... successfully... back home.

Summary;

Suspect everyone who is sick to be covid case especially during this pandemic

Better to test and prove

High fever treat/ admit early

All Need not present with fever cough

Drowsiness... neurological presentation

Backache ... Orthopedic presentation

Hypoglycaemia... endocrine presentation

GI symptoms.... Gastro Enterology etc

Oxygen very essential in some cases

Senior citizens with co-morbidities extra care

CRP and HRCT chest very useful for diagnosis

Pulse oxymeter readings very useful and essential for daily follow up

Ask for 6 minutes walk test 3 times daily

Proper diet more liquids and fruits

Medicines used at home quarantine treatment

Paracetamol

Pantaprazole

Ambroxol

Monteleucast with fexofenadine

Azithromycin

Doxycycline

Ivermectin

Anti viral antibiotics

Vit C

Zinc

Vit D

Aspirin

Statins

Above medicines especially antibiotics aspirin and statins to be used depending on severity age co morbidities allergies etc. Lastly as per the government protocol (covid 19 protocol) SMS is a must

Sanitisation

Mask

Social distancing

Why because in 3 families it spread from one member to all other family members. Either infection brought home by younger people going out for job

Or workers coming home for cooking cleaning Or in mass gatherings like marriage or funeral

1 st family..... a sudden death of elderly due to non covid cause? ... Not known ... all relatives came for funeral.... one from West Bengal... after the funeral ..... the elderly man's wife died due to covid..... no body gave attention to her inspite of cough & fever ..... then 6 persons turned positive.... daughter ...son in-law ... daughter in law .... etc ... all young... home quarantined & treated.

2 nd family .... 5 members ... again from where the infection came don't know .... could be from dental surgeon ....her sister father mother daughter all positive. .... 2 persons admitted for drop in oxygen .....recovered fully.

3 rd family .... 4 members positive... Parents with diabetes hypertension etc & 2 sons ... all recovered except one .....source of infection not known.

So taking proper precautions is very important

SMS is very very important

All in all a different clinical experience of 3 -4 months in last 40 yrs. Many of you might have had lot of experience like this. So please share your experience to enhance our knowledge and proper approach

Sorry for boring you all

Thank you all dear friends !

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CORONA VIRUS-AN ECOLOGICAL PERSPECTIVE

Prasad Janardhan Kamath
Bombay Natural HistorySociety trained and certified Natural Conservationist

The world was lumbering along in its hedonistic indulgence, when a virus came out of the blue ,to halt it midstream.

This was early 2020,a year that looked so appealing, just by the looks of it, numerologically, that it was awaited eagerly, to the disappointment of many, it has turned out 'Bogey' year.

Now towards the end of the year, the world is eagerly awaiting a vaccine, so that they can get rid of the virus & go back to their old narcissistic lifestyles, a lifestyle that many are so addicted to.

So is the virus, just a interlude in the relentless run for progress that the human race is blindly chasing or is it something else?

This is a question that needs answering by the whole of the human race.

Are we the most important species on earth?

The novel coronavirus is holding up a mirror to our species, giving us an opportunity to consider our place in the evolution of life on Earth and question our anthropocentrism.

But we haven't seen news reports, articles or essays that give the "big picture." What we want and need is an ecological and philosophical context to help us understand the coronavirus. The pundits and Editors, Writers focus on the human-interest personal stories, the economic and social disruptions, the lockdowns, layoffs, overwhelmed hospitals, lonely deaths. But what does this mean, in the big picture of life? What can we learn, how can we change?

That brings to the fore the question. What is life itself?

In an entropic world, where the second law of thermodynamics leads the energy systems from an organised level to disorganisation, life discovered the trick to create small areas of energy organizations using information stored in molecules like the DNA. Using information-containing molecules of RNA or DNA, living things managed to tap the flow of solar energy and chemical energy on the planet to organize little packets of order in the entropic universe. "Energy is the only life," wrote William Blake, the English mystic poet. "Energy is Eternal Delight."

But... so... what is life? Although the definition remains somewhat fuzzy, you would probably get most biologists to agree that living things have cells in which genetic information produces processes that harvest energy to maintain their orderly structure and reproduce themselves. The genetic information, stored mainly in DNA-containing "genes," controls the assembly of proteins that make all the rest of the battle against entropy happen. Bacteria can do this with a few thousand genes; multicellular organisms usually have a few tens of thousands of genes.

But viruses are not even that.

They seek other organisms to reproduce themselves after inserting their genetic materials within, like a pirate ship taking over the merchant vessels. This is probably the most energy efficient form of reproduction. They don't even need a cell to taking their genetic material to the next generation.

But the interaction of species is a continous biological warfare between organisms .

The virus predating on bacteria & other higher forms of organisms elicits a biological reaction within to halt this predation.

In turn the virus mutates & evolves.

In the bargain all the species "coevolve".

There is never a winner.

Some species retain these virus DNA as junk pallindromes or better still they put them to useful metabolic purposes for beneficial protein synthesis.

Our very own human Genome itself is 7 % viral DNA, a reminder of our past infections as a species.

Ecological wisdom teaches us to respect this coevolution of species.

Humans cannot survive in isolation, they need a ecosystem of organisms that they have coevolved with over millions of years.

The 'Gaia Hypothesis' was a thought-provoking and controversial concept developed in the early 1970s by James E. Lovelock, an eclectic British scientist with a Ph.D. in medicine and interests in atmospheric chemistry, and Lynn Margulis, an American evolutionary biologist. Their joint 1974 paper proposing the idea was titled "Atmospheric Homeostasis By and For the Biosphere: The Gaia Hypothesis." Named after Gaia, the goddess of Earth and mother of all life in Greek mythology, the hypothesis proposes that living things interact with the physical components of the planet—the atmosphere, lithosphere, and hydrosphere—to form a complex, self-regulating, homeostatic, synergistic, symbiotic system. "Early after life began," they argued, "it acquired control of the planetary environment and ... this homeostasis by and for the biosphere has persisted ever since." Drawing ideas from systems science at all scales, Gaia was sometimes portrayed as a single, living organism of planetary scale. The idea was provocative and compelling, but drew criticism from evolutionary biologists because in some formulations it seemed teleological—that is, goal-directed, purposive, and perhaps even conscious. Evolutionary theory since Darwin had rejected teleology as an explanation for biological structures and functions, instead viewing natural selection as the creative force in evolution.

While Lovelock brought the atmosphere and other physical systems into the picture at the planetary scale, Margulis brought symbiosis into the system at the smallest scales. Her work, controversial at the time, revolutionized scientific understanding of the evolution of eukaryotes. She proposed that the internal "organelles" found in eukaryotic cells, such as the energy-processing mitochondria and photosynthesizing chloroplasts, were once independent bacteria that had been taken inside the larger, walled cells as mutualistic "endosymbionts," where they provided new and powerful functions to those cells. Her hypothesis was at first ridiculed, but within a decade, genetic analysis of the genes in those mitochondria and chloroplasts proved that they were indeed prokaryotic in origin. We find another & more equanimous analogy than that of a pissed-off Earth goddess, in the ancient traditions . The metaphor of the jeweled Net of Indra as described in the Avatamsaka Sutra, an ancient Buddhist text, is one such metaphor. Indra's net is pictured as stretching infinitely in all directions. At each of the knots of the net is a glittering jewel; each jewel reflects all the other jewels and is itself reflected in all. This metaphor describes what was called "dependent co-arising," paticca samupadda in Pali (the original language of the Buddhist canon). Robert Aitken, a modern Zen teacher, called it "the harmony of universal symbiosis." I imagine Lovelock and Margulis wouldn't mind that description of Gaia.

Coronavirus is giving us an opportunity, once again, to reconsider our anthropocentrism and human hubris. To get our bearings again in the time of coronavirus we need to "realize where we are and the infinite extent of our relations," as Henry David Thoreau wrote in Walden. We are part of a coevolved and continually coevolving biosphere. From the viral DNA deep in our genes to the ancient endosymbiotic bacteria that power our cells, from the signatures of past pandemics we carry in our chromosomes to the microbiomes and viromes inside our bodies, from the diversity of species we live among and eat to the atmosphere we interpenetrate with every breath, we live in a world of dependent co-arising. Like it or not, we live within the harmony of universal symbiosis -

coronavirus and all.

The hubris of the human species doesn't let us see the reality ,that is in a sense, the earth mounting an immune response against the human species. The Earth is beginning to react to the human parasite, the flooding infection of people, the dead spots of concrete all over the planet, the cancerous rot-outs in Europe, Japan, the United States & Asia, thick with replicating primates, the colonies enlarging and spreading and threatening to shock the biosphere with mass extinctions. Perhaps the biosphere does not "like" the idea of five billion humans.

Nature has interesting ways of balancing itself. The rain forest has its own defenses. The earth's immune system, so to speak, has recognized the presence of the human species and is starting to kick in. Is the earth attempting to rid itself of an infection by the human parasite? The present pandemic has certainly raised this question.

But will our human hubris let us answer it?

That is the million dollar question...!!!

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REHABILITATION POST COVID

Prasanna Eknath Lapalikar
Yoga Wellness Instructor, AYUSH certified
Yoga Teacher, D.Y.Ed-Yoga Vidhyadham

Well, the year 2020, is about to end, but all of us across the globe will remember this year for the pandemic – 'Covid-19'.

It all started a year back and with huge number of cases falling in different categories- the treated, the one who are under treatment, the recovered ones and the unfortunate victims of the virus. It is for this reason, so much is talked that there are people from all classes and masses who are now fully aware of the pandemic.

Ask the one who have recovered, how much disturbing the overall handling of the disease was. Ask the relatives of the people who have lost their lives, and you will come to know why there is still fear.

Across the world, and in our own India, Doctors and the paramedical people have fought religiously, at own risk helped many people. In fact the society will always be thankful to them for their selfless support.

Till the time, proper treatment options such as vaccine is not available; all of us have to protect our self.

One thing has emerged is, that people have started becoming aware about options other than medicines such as Yoga and home remedies.

While it is to be clearly understood that there is no such mention about Yoga helping to cure the diseases, but in certain recommendation guidelines, such as AYUSH, it is mentioned that YOGA helps to prepare our self to handle, build our immunity to protect and also for post Covid patients.

Preamble-

Yoga is a discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. Yoga helps to build up psycho-physiological health, emotional harmony; and manage

daily stress and its consequences. Yoga is also useful in conditions where stress is believed to play a role(1). Various yogic practices such as Yogasanas, Pranayama, Dhyana (meditation), cleansing and relaxation practices etc. are known help modulate the physiological response to stressors. Several randomized controlled studies have shown the efficacy of Yogic practices in management of non-communicable diseases like hypertension(2) , Chronic Obstructive Pulmonary disease (COPD)(3) , bronchial asthma(4) , diabetes(5) , sleep disorders(6), depression(7) , obesity(8), etc. that can be comorbid conditions in patients with COVID 19. Yoga has also been shown to be useful in vulnerable population such as elderly, children. The function of the immune system is critical in the human response to infectious disease. A growing body of evidence identifies stress as a cofactor in infectious disease susceptibility and outcomes(9).

Studies on yoga in managing flu symptoms during an Influenza season have shown promising results. A recent randomized trial comparing meditation and exercise with wait-list control among adults aged 50 years and older found significant reductions in ARI illness during cold season with mindfulness meditation(10) . Yoga is also known to increase mucosal immunity by increasing Salivary Beta Defensin-2 levels in elderly population(11) Considering that they are a vulnerable group to contract such infections, yoga may be useful as a preventive measure. Yoga practices such as Kriya, Yogasana and Pranayama have been shown to reduce airway reactivity in elderly subjects with asthma and COPD(12). Thus, sufficient evidence exists to justify testing the hypothesis that training in Yoga /Meditation can reduce

susceptibility to ARI illness. Neti kriya is useful in acute coryza and symptoms of cold (13) .

Yoga may play significant role in the psycho-social care and rehabilitation of COVID-19 patients in quarantine and isolation. They are particularly useful in allaying their fears

and anxiety.

Under the guidance of certified Yoga Instructors / Teachers, a safe set of Yoga practices based on available scientific evidences,

Yogic practices for healthy individuals to develop strong immunity.

1. Omkaar Chanting.
2. Mangal Chintan-Reciting Mantras.
3. Easy Yogasan/ Sun Salutation.
4. Pranayama- Kapalabhaati, Anulom Vilom, Ujjayi, Bhramari Rechak, Omkaar Dhyaan
5. Mahamryutyunjaya Mantra, Vishwakalyana Prarthana
6. Hanuman Chalisa / Ramarakshastotra
7. Yoga Nidra for removing fear from Corona

II	COMMON YOGA PROTOCOL - 20 MINUTES		
	Practices	Name of the Practice	Duration (Minutes)
A	Starting	Prayer	30 seconds
B	Loosening Practices (SukṣmaVyāyāma / CālanaKriyā)	Neck Bending	2.5 minutes
		Shoulder movement	
		Trunk Movement	
C	Yoga Practices		
	Āsanas performed in standing posture	Tadāsana (The Palm tree posture)	1 minute
		PadaHatasana(The Hands to the feet posture)/ArdhaChakrāsana (The Half wheel posture)	2 minutes
		Trikonāsana (The Triangle posture)	1 minute
	Āsanas performed in sitting posture	Bhadrāsana (The Firm/Auspicious posture)	1 minute
		ArdhaUshtrāsana (The Half camel posture)	1 minute
		Sasakāsana (The Hare posture)	1 minute
		Vakrāsana (The Seated twist posture)	1 minute
	Āsana performed while lying on the stomach	Bhujangāsana (The Cobra posture)	1 minute
	Āsana performed while lying on the back	PawanaMuktāsana (The Wind releasing posture)	1 minute
D	Kriya	Kaphalabhati (The Shining skull practice) 1 rounds, 30 cycles each	1 minute
E	Pranayama	AnulomaViloma Pranayama (The Alternate nostril breathing) (5 rounds)	2 minutes
		Bhramari Pranayama(BhramariRechaka) (The Bee sound breathing) (3 rounds)	1.5 minutes
F	Dhyāna	The Meditation	2 minutes
	Closing	Sankalp/ Shanti patha	30 seconds
	TOTAL DURATION		20 minutes

Yogic practices for Corona affected, recovered and want to improve health and wellness.

Sessions based on individual capacity to practice. Day by day increase in Yoga practices.

1. Omkaar Chanting

2. Mangal Chintan- Reciting Mantras.

3. Micro movements

4. Easy Asanas/ Sun Salutation.

5. Pranayama

6. Yoga Nidra

Yogic Diet

Follow the recommendations as per the medical advice on diet for your condition of diabetes, or heart disease etc. and add-on these concepts from yoga that promotes mental health. This includes wholesome nutritious freshly cooked traditional home cooked food with plenty of fresh vegetables and fruits (with restrictions as per your disease condition) with added traditional spices in moderate quantities, consumed at regular timings.

DISCLAIMER: Every Individual has to consult a doctor, before starting the Diet, based upon individual health condition and also keeping in mind what to eat and what to avoid.

COMMON YOGA PROTOCOL - 20 MINUT ES-DEMO CHART(AYUSH GUIDELINES)

Other Yogic practices-

1. Jal Neti- Using luke warm water mixed with salt to be used for cleaning nasal passage. (To be practiced under observation of an expert).
2. Steam Inhalation
3. Gargling with curcumin, Salt and luke warm water.

It is appropriate to consider YOGA to be practiced as an alternative, which can be of support for many people, not only the sufferers but also the one who have not suffered, but want to protect themselves.

Source:

1. Ayush Ministry Guidelines, GOI
2. Actual Yoga sessions taken online as per guidelines designed by Dr Vishwasrao Mandlik, Yogacharya, Yoga Vidya Gurukul, Nasik.

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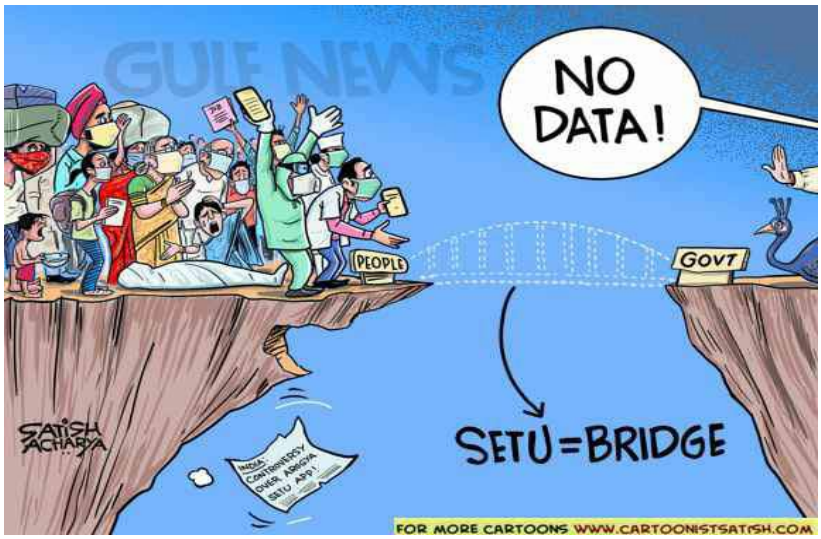
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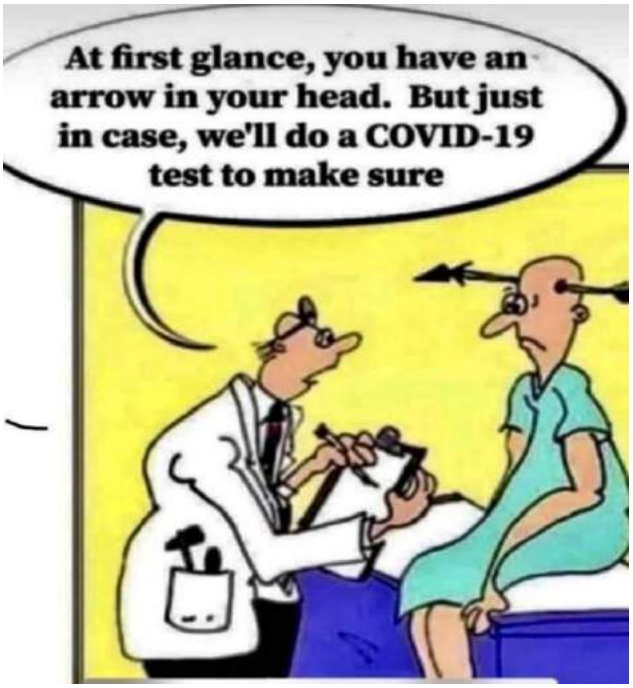
DO YOU HAVE ANY COVID GET WELL ONES?
FIRST WAVE OR... SECOND?
PONNAPPA


BREATHE DEEPLY.
THE DOCTOR WORKS FROM HOME.


At first glance, you have an arrow in your head. But just in case, we'll do a COVID-19 test to make sure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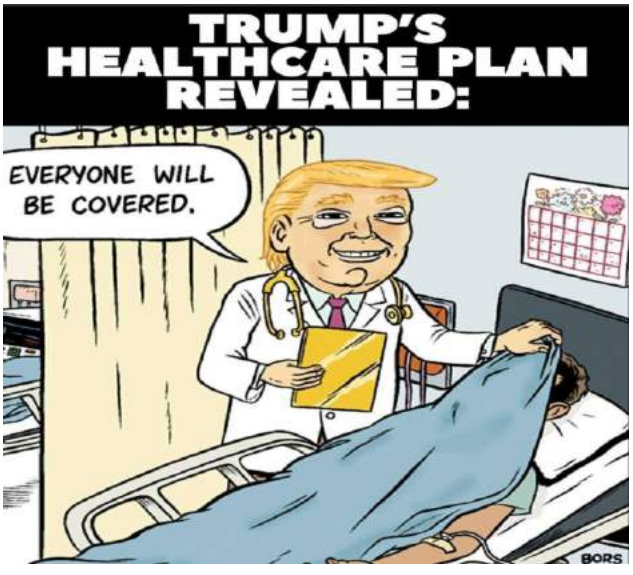
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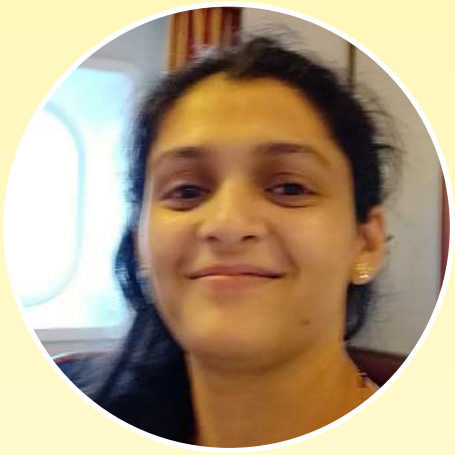
TEAM E-SOUVENIR

Dr Archana Pate
Advisor

Dr Suchitra Kamath
Editor



Dr Ashwini Dharmadhikari
Co-Editor

Dr Nayana Chaudhari
Co-Editor

Dr Anjali Vaidya
Co-Editor