

We are indeed blessed to have a director who makes sure that we are always motivated and to do this, he exposes us to various dynamic personalities from diverse fields from around the world. The interactions and question-answer sessions with experts from various fields broaden our views and enable us to understand about different fields thereby expanding our horizon. On 27th December 2020, the students of MAHSS got an opportunity to listen to and interact with yet another wonderful personality & that was none other than Dr Kedar Padte.

Dr Kedar completed his MBBS in 1979 and received a gold medal in the final year at Goa Medical College. He did his MD in Obstetrics & Gynaecology from Bombay University in 1984 & secured the 1st position at the University as well. Dr Kedar Padte did a Diploma in IVF from IPSI Sydney Australia in 1999. He has been practising as a Consultant Obstetrics & Gynaecologist for the last 40 years!

No doubt Dr Padte's biodata was good enough to inspire all the students attending the lecture, but the fact that really amazed me was that Dr Kedar remembered the exact numbers of all the cases that he had handled till date! Whether it was the the number of pregnancies managed, number of patients treated for infertility, number of IVF babies, number of twins or triplets delivered, he had it all at his fingertips. This made us realise how passionate Dr Kedar is about his work. In fact, in a reply to one of the questions asked, Dr Kedar stated **"it's not just work, it's passion!"**

A very creative heading **"The Aryaan Ideas"** kickstarted his presentation.

Dr Kedar began his presentation by highlighting the importance of learning in our lives. There's no point in learning for the sake of learning or because of the competition around.

Learning can be beneficial only if one learns happily. And when is that possible? When one chooses to do & learn what one likes, one becomes passionate about what one is doing.

Dr Kedar also advised us to go through the basics first and then master the advanced concepts. He also reminded us that our competition was with ourselves and not anyone else.

Dr Padte then introduced us to the various divisions in the MBBS curriculum, namely ; the para-clinical fields, the clinical fields and then the specialities .

The para clinical field includes

- **Physiology**
- **Anatomy**
- **Pharmacology**
- **Biochemistry**
- **Forensic**
- **Pathology and**
- **Microbiology**

while the clinical fields include the **surgical** and **non surgical** branches.

He also stated how both the divisions are equally important in the field of medicine.

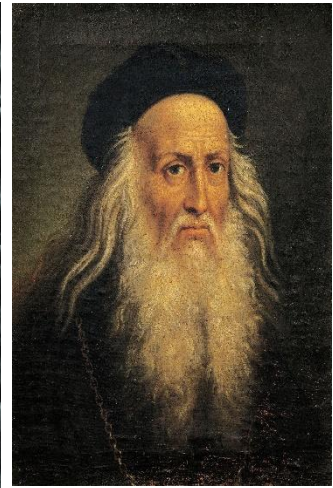
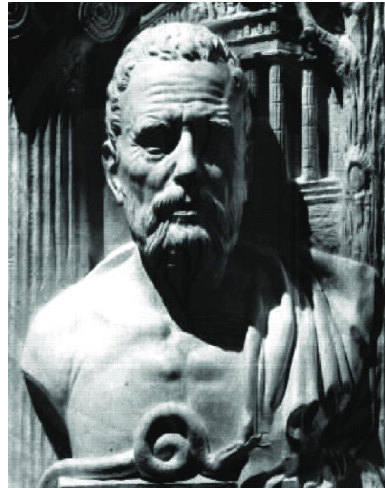
Then he touched upon various advances such as

- **Stem cells**
- **Endoscopic surgery**
- **Microbiology**
- **Drugs**
- **Tele-medicine and**
- **Robotic surgery**

He explained how these fields have progressed and what potential they have in the coming future. Just to give an example, he explained that sometime ago for a particular surgery, the doctor would have to make a huge cut on the abdomen of the patient, but now with the gift of endoscopy, the same surgery can be done through a keyhole enabling the patient to go home the next day with a small stitch!

Doctor also gave us a glimpse of the beautiful history of medicine and the contribution of various personalities in its development. Leonardo da Vinci gave a clear idea of the anatomy while Soranus of Ephesus also made a significant contribution.

Doctor also mentioned about the wonderful library at Ephesus.



To make us understand how research and new ideas emerge and progress in the field of medicine, Doctor Padte told us about how the source of Gonadotropins has changed over the years. In the very beginning these Gonadotropins were derived from animals, but the issue with these hormones was they caused reactions.

Later the idea of extracting the hormones from the pituitary gland of dead ladies came up. But to make one ampule of the hormone, the pituitary glands from ten brains were required!

That gave way to the concept of a biovector, a combination of a virus and a bacterium which was fed into Hamster egg cells to produce recombinant FSH! And Dr rightly called this a perfect example of the quote **'Sky is the limit'**.

Doctor explained to us in brief the concept of Artificial intelligence and how it has been divided into three categories:

- 1) Artificial Normal Intelligence**
- 2) Artificial General Intelligence and**
- 3) Artificial Super Intelligence.**

The third one being the one in which the robot actually holds the capacity of surpassing human thinking. Well it all sounded very fancy but doctor also gave us an example of how things could go wrong when sometimes your own command given to the robot backfires.

So what's the role of robotics in the field of medicine?

When doctor spoke about robotic surgery, the concept looked rather imaginary. But Dr Kedar explained that this was in fact being practised!

A machine with robotic arms and other instruments is paired with the console or the computer at which the doctor sits and the surgery is conducted according to the way in which the doctor moves the levers on the machine! A surgery similar to the joystick games!

In fact this would soon allow a doctor sitting miles away from the patient to operate just by syncing the computer to the robotic arm!



In response to one of the questions raised, Dr Kedar explained the advantages and limitations of involving AI in the field of medicine.

Some of the advantages are:

- The camera can provide a much wider field of vision than what would be visible to the human eye at open surgery.
- This also solve the problem of long standing periods during long surgeries.

But everything has it's own drawbacks,

- Involvement of these equipments can shoot up the cost of surgery.
- Also some particular procedures like delivery of a baby can be done only by the human hand.

Hence Dr mentioned that this is a technology created by us human beings and hence we need to decide the extent to which these machines can be used.

During the question answer session, Dr also shared with us some stories and cases that he had encountered in his journey.

Dr also cleared the misconception which many individuals had that medicine is all about surgery.

Dr stated that out of all the cases that present to hospitals, about 90% get cured through treatment with medicine and only about 10% require operations. And out of this 10% of cases about 1% develop complications.

When a car driver drives absolutely carefully and follows all the traffic rules meticulously, there could still be an accident. Well such incidents could also take place on the operation table. Dr Kedar also discussed in brief the protocol that is followed in such cases ; like 1) keeping one's cool 2) in case of bleeding arranging for blood and 3) mobilising help when necessary.

Many movies are known to portray that doctors tend to get nervous when it comes to operating on one of their own relatives. Was that really true or just a story cooked up by the writers, this was one of the questions asked . To which Dr replied that this entirely depends on one's individual nature.

He also explained to us how research work was done. During a particular case one might come up with a question or a topic to ponder over. One can gather information about that particular idea, experiment it, have the data collected and present it as a paper. No doubt the success of the idea can give rise to a research paper but even if it fails the failure can be presented as a paper to inform the the world that such an idea is not viable.

Just like all the other experts from the field of medicine who interacted with us faced this question from our director, so did Dr Kedar. The question being, 'Isn't medicine a lot about mugging?' Does it not expect too much remembering from the students rather than applying the knowledge ?

To that Dr gave a wonderful response: Yes, initially there is a bit of mugging but unless we have knowledge of what is where in the body, it will be impossible to treat any ailment or conduct any surgery. The doctor makes an incision confidently only because he is aware of all the layers, the nerves & vessels and there

positions perfectly. Initially there might be pressure on one's memory but slowly it becomes a part of one's system.

The lecture was a great learning experience and the different case studies made it even more interesting and enjoyable.

At the end of this sessions we all students took home a very important message with us, ***“To be passionate about what we do”***and ***“ Keep Learning and Learn happily”, for in life there is no end to learning !***

-SOUMYA SHAILESH HEDE

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