

Evolution of Medicine- skills gained and art lost

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INTRODUCTION

The scope of medicine begins before we are born from the time the mother conceives to the time of death. The quest for living with full vigor, health and immortality makes everyone believe that he or she is an exception to ailments. It is a known fact that debilitating medical conditions and death are unfortunately universal: they can affect anyone, regardless of wealth or social standing.

Holistic medicine has facets like preventive medicine, curative medicine and social medicine. All facets have two dimensions, one is the body and other is the mind dealing with physical, emotional, spiritual imbalances for ensuring optimal overall health.¹

The Vedic knowledge has been a solid source of which led to evolution of modern medicine whose roots appear in Ayurveda. Ayurveda an ancient oriental medicine consisting of 100000 verses and 1000 chapters which is an offset of the atharva-veda and rig-veda. Names like Dhanvantari, Atreya, Charaka, Susruta are imprinted in the history for embarking science of curative medicine. Indians were ahead of time to be able to discover reserpine for treating hypertension and knew how to perform plastic surgeries, cataract surgeries way back in 200-800 BC. Charaka samhita and susruta samhita are the role models for physicians and surgeons for many years after that. It was this medicine which was practiced for long.^{2,3}

The discovery of vitality of preventive and social medicine reflects in the infrastructure of the Indus valley and Harappan civilizations. They show the earliest evidence of urban sewage drainage system, wells for drinking water and water harvesting systems. It is evident that Governments building a sanitation barrier in ancient times reflect the development of facets of preventive and social medicine.

The Enlightenment phase:

What medicine needs to do is propel towards cure on one hand and prevention on the other.

In the 19th century medicine took a big leap towards more scientific notion. Establishment of the germ theory of

disease, techniques of vaccination, advent of stethoscopes to the extravagant inventions of Radio-diagnosis, anesthesia, clinical medicine and disinfection reflect the evolution of modern medicine. Advancements in biology was nursed by discoveries, inventions of physics and chemistry. Medicine evolved into numerous specialties and there is a paradigm shift in understanding of science from organ to cells and to further to molecular level.

Treatment of disease is oriented towards restoring the normal physiological state and removal of causative agents in nutshell.

The Clinical Medicine phase:

In the 20th CE life expectancy of humans had markedly improved due to improvement of public health. Discovery of penicillin, sulfonamides, clinical epidemiology, non-communicable diseases and control of communicable diseases were the new developments in medicine. Many medical colleges were set up where diagnosing followed the protocol order of hearing to the patient, looking at him, touching him and then ordering investigations if at all necessary. This was the era where theoretical knowledge directly converted into expertise diagnosis. Indian doctors were famous for this more than anyone else. This is a form of an art. Bedside blood, urine examinations, temperature charting, general and systemic examination were the tools for diagnosis. Clearly medicine was an art, correlating theoretical knowledge and practical knowledge is difficult because, it cannot be learnt from the books alone, it is something beyond. It's a heritage that can be passed from a guru to sishya and not in any other form.

The modern medicine phase...

Medicine of the 21st century can be called as modern medicine as it is substantially more equipped with technology. With human cognizance inputs from genetics, engineering, pharmacology, ancient oriental medicine and biomedical sciences are being extracted and incorporated into Modern medicine.

Evidence based medicine (EBM) is a breakthrough treatment approach in recent times. Both the traditional medicine and EBM take evidence into consideration but EBM

demands better evidence which is conscientious, explicit, judicious and relies on reasonable use of modern, best evidence in making decisions. It is imperative that caring for one's own patients creates the necessity for investing time to dwell into clinically important information which ensures cost effectiveness and better health care. It opens doors of counseling patients to enroll patients in studies of treatment, diagnosis and prognosis where the buy of patients becomes a pre-requisite in reinforcing the course of treatment.

For example, despite the strong evidences that the treatment of thrombolytics and use of aspirin are efficient in treatment of acute myocardial infarction, it took almost one decade that these treatments become routine in treatment procedures for the patients with acute myocardial infarction. EBM avoids such delay.⁴

EMB extends scope of medicine by allowing fast application of latest techniques.

Telemedicine which is in some form or the other over decades is now catching up leveraging on technology, communication tools and weeding out commuting for long distances for majority of consultations which may not need physical examination and access to the best of the super specialty doctors at the click of a button. Telemedicine also extends its application to conduct epidemiological surveillance, home monitoring of mentally ill patients, telemonitored procedures-surgery using hand robots. It is a useful tool in disaster management, public education and medical education.⁵

Robotics and Artificial Intelligence in modern medicine is in demand for their speed and accuracy. Robots are now being used for minimally invasive surgeries, especially for neurologic, orthopedic, and laparoscopic procedures. It is indeed a welcome gesture that the robotic devices are now being used with sophisticated cameras as a substitute of physical examination and are aiding surgeons the spatial references needed for highly complex surgeries, rehabilitation, sanitation, disinfection.⁶

Its time we retrospect as to what is modern medicine failing at? Why is it close to be called as palliative medicine rather than curative medicine? As we got closer to the technology directed approach, we got equally far to the bedside history taking and clinical examinations. This increases the risk of wrong diagnosis. For example, Fracture will only be joined back, but if there was parathyroidism it would be missed. Citing another example, a patient has undergone a cholecystectomy, appendectomy, in the discharge summary of both the procedures, presence of multiple adhesions had been noted. But lack of proper history taking missed dysmenorrhea and incidental finding of adenomyosis and the patient continues to suffer and blame the doctor fraternity.

Modern medicine has lost art of bringing body to homeostasis. It has widened the doctor patient relationship. A patient became a case, a case became a disturbed organ system and an organ system has zeroed down to curing just one organ. Ubiquitous availability of advanced investigations has ushered healers to identifying the focus of trouble in the body, before a detailed history taking or clinical examination. This surging trend in corporate setups is working well to raise only profits and failing to discern cause of symptoms.

It is pertinent to state that the medicine is drifting from suffering patients to laboratories. Laboratory and radiological investigations are jeopardizing the plan of treatment. Contemporary medicine has boiled down to mere euboxic medicine. Euboxic medicine is having all parameters on a pathology report to be between the +2SD to -2SD of the statistical normal range. Objective is to correct the abnormal parameters to normal and often normal reports suggest absence of disease despite the patient being in pain. It eliminates the scope of normal variation. This is ironically is the prevalent form of medicine practiced all over the globe now thus degrading the quality of judgement call in diagnosis and treatment.

CONCLUSION

Modern medicine threatens to degenerate into an impersonal, soulless technology. Doctors must raise their communication abilities and gain the trust of the patient. We must try to restore wellbeing as holistically as possible towards patient care.

Healing is different from treating. It is an art which cannot be mastered by reading books; It must be passed from one generation of doctors to another. The real role of a good doctor is to allay anxiety and relieve pain. Doctors are required to have two qualities, a good head and heart. He is expected to be able to take accurate decisions in difficult situations and the same time must show compassion to the suffering patient. Simple things like a smile, touch and eye contact can help to calm the helpless patient's anxiety. They must be dynamic to strike this balance.⁷

Doctors incur a certain responsibility as exemplars for patients with regard to healthy behavior at work and in public image by not smoking not using tobacco and consuming alcohol.

Medicine is more about mastering the art rather than demeaning it by only looking forward to procuring new technical skills and knowledge.

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