Whither orthopaedics today: An introspection

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Many years ago, Late Dr. P. K. Sethi, Magsaysay awardee, gave the P. N. Wahi oration. The subject was “Whither Modern Medicine.”

He spoke about transformation of what was once a vocation of healing into what is essentially commerce, another example of what Ivan describes as “disabling professions.” In that, he spoke of the growing trend among physicians to order high-technology investigations and the latest treatment modalities. He spoke of the 10% urban elite, affluent class who wield power and are the decision makers. They are the ones who want the best and the latest in medical technology, and in the process, over look and ignore the 90% of rural poor, who can ill afford these modern marvels of medical technology, be it for diagnosis or treatment. Not that he was an orthodox puritan, for in retrospect not all that extra testing was unjustified. What he objected to was this flair for investigations replacing clinical examination. This growing propensity to investigate has become the subject of much debate and is being raised even in media and reality shows. When we fail to palpate the abdomen or bypass it by ordering a sonography, it is the cause for concern. High-resolution computed tomography (CT) scan is replacing chest auscultation. Electromyogram and nerve conduction velocity are replacing peripheral nerve examination. When you use magnetic resonance imaging (MRI) to exclude or substantiate a clinical observation, it is understandable. What is difficult to fathom or swallow is ordering it without even doing a neurological examination. And when there is the whiff or hint of extraneous or devious intentions behind the prescribing, there is a cause for introspection.

Dr. P. K. Sethi writes in his article, “The doctor in the 21st century” The emergence of electronics, digital display systems, microchips and computers have now suddenly changed the entire scenario. The extent to which both patients and doctors have become mesmerized by contemporary diagnostic technology is indeed remarkable. It appears that no doctor is now willing to make a diagnosis, and no patient is willing to accept one, without recourse to the formidable diagnostic armoury offered by the medical-industrial complex. This is leading to amazing distortions. So disturbing has been this obsession for new imaging techniques, that the New England Journal of Medicine published a whimsical article entitled “CAT fever.” These have not only put the cost of medicine out of the reach of the poor, but have also led to unethical practices such as kickbacks, and often unnecessary surgery.

Quite so often, the investigation hardly fulfills its purpose. We are all aware that an MRI has specific indications because it gives specific information. Although it is not essential to know how to interpret this information, it is preferable if the person ordering it knows what he/she is looking for, and how and where to look for it, instead of relying solely on the accompanying report. Likewise, a CT scan has its own indications and uses. It can give a three-dimensional reconstruction which an MRI cannot. It is seldom that the one can substitute the other, but when they start being used as mutually replaceable, when the one is ordered because the patient already has the other, a little introspection is called for on the whys and wherefores.

There is a flip side of the picture as well. For one, the clinician feels failure to get the entire gamut of investigations done opens him/her to libel in consumer court.

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Besides, as far as the patient is concerned, charges for the investigation are not influenced by prescription. Any cut back, if any, is not coming out of the patients’ pocket. Maybe, no cause for cribbing there, but all that justification, calls for some honest introspection, a good look through the looking glass.

When I was a post graduate (PG), very few companies manufactured implants in India, and the ones being imported were usually very exorbitantly priced. The spurt in the manufacturing within the country was owed to the huge margins of profit in an industry that had no form of standardization. An increasing interest of the foreign manufacturers to market their goods at competitive prices resulted in a sea change in the fixation of fractures. The improved quality and design of implants, based on research and clinical trials, with specialized sets of instrument, gave a huge impetus to not only orthopedic trauma but also to elective orthopedic surgery.

The pendulum was swinging from rigid fixation to biological fixation, from anatomical reduction to functional reduction, from minimal access to preservation of blood supply in the AO principles, and at least some part of it was implant manufacturer and industry driven. If this has been based on the expertise and finesse acquired through long time or constant use, it is, and would be, desirable. Unfortunately, the cut throat competition created a new fracas, and added a new dimension, that of incentives.

It led to the creation of CORPORATE CAMPS and dominance of manufacturers, which in turn affected the work ethos. It became the major influence on professional and academic inclinations.

Nonoperative treatment has now become passé. There is a growing tendency to fix everything. “An increasing number of orthopedic residents in various parts of the country are graduating, without ever having treated a Colles’ fracture by nonsurgical means. Soon I suspect we will witness the same pattern in the treatment of clavicle fractures. It would not be surprising if the same trend eventually includes rib fractures.”

These are not my words or about India. These are Sarmiento’s quotes about the USA about what it now turns out is a global situation. The indications for surgery are being stretched in a bubble gum effect, whereas literature reports show no difference in results in medium-to-long term follow-ups. Chronic pain is more common in operated group, though function may be slightly more limited, which may be inconsequential.

Every operative treatment used to and still does, have specific indications, absolute and relative, but now the most bizarre rhetoric is “If I don’t do it, someone else will.” This is now the most compelling indication for surgery.

It seems like the inexorable march, of what Fuchs has called “the technological imperative,” a tendency to take action, whatever the cost, even if it offers just a hint of utility.

The Office of Technology Assessment case study on Intensive Care Units (ICUs) listed factors that led to a treatment imperative in intensive care medicine.

- The focus on high technology, which obscures the underlying rational for treatment
- The nature of ICU illnesses, which often requires technologically oriented treatment just to keep the patient comfortable. This blurs the distinction between palliative treatment and definitive treatment
- The moral climate which stresses erring on the side of more treatment, rather than less
- Diffusion of decision-making responsibility
- The problem that many patients are not able to make their wishes known
- The practice of the so-called “defensive medicine”
- A payment environment which encouraged ICU care in general and procedure-oriented care in specific.

This could well define the current trends in corporate hospital management issues and concepts adopted to surgery. Our PGs are picking up the same concepts. Neither we nor they are aware of evidence-based guidelines or protocol. In our race to outdo the others, we are playing a game of numbers. Who does the first? Or who has done more than hundred or thousand? I remember my peer Dr. M. N. Kathju had posted a huge placard in the OT. “A surgeon’s preference for an operation is no indication for the operation.”

The huge choices in terms of the implants and the manufactures led to the birth of the phenomenon of incentives and kickbacks. Why should I use a particular company’s products in preference to another when both have an impeccable quality and competitive pricing has become a logical question? The answer is equally logical, but probably not ethical. Robert Louis Stevenson wrote a book “Strange case of Dr. Jekyll and Mr. Hyde” and much in the nature of his character, the Dr. Jekyll’s are turning into Mr. Hyde’s’. This is exactly what the doctors are being accused of.

Dr. Augusto Sarmiento was kind enough to present me his book “Medicine Challenged.”

It is a compilation of his articles written on this subject, and it was an eye opener for me. I was under the impression that my fellow community was the one solely plagued by
this drive for incentives, but this I discovered is a global phenomenon. He opines:

- Medicine is increasingly ceasing to be a profession and becoming a business
- New and improved techniques primarily benefit the manufacturer of the products
- The ongoing preference for the surgical option in the management of virtually all musculoskeletal conditions is frequently based on economic considerations
- The education of the orthopedist is structured primarily for the purpose of satisfying the marketing needs of the industry
- The use of kickbacks to orthopedist in tens and hundreds of thousands of dollars for the use and support of industrial products has come to the attention of the Justice Department.

Suddenly, every aspiring orthopedic surgeon wants to super specialize in joint replacement surgery. Is it because it is so "cool"? Is it that all of a sudden there has been a huge surge in patients requiring joint replacement surgery? Or are there some ulterior reasons bordering on lucrateness.

Operations are performed in substandard situations instead of centers of excellence. The IOA initiative in this respect is laudable. It goes without saying that as the techniques and implants improve, the ambit of their use is going to grow wider and the indications will increase. If, however, this growth is not scientific, but driven by other considerations, it is for all of us to introspect. It should not become a game of numbers, as it seems to have become.

Recently, I came across a Springer book, “The Unhappy Total Knee Replacement” by Hirschmann and Baker editors. Prof Muller in the foreword to the book writes “We are still fighting for more durable, long-lasting, pain and problem-free TKR implants. The current 80% success rate is not good enough. On looking at the orthopedic literature more closely, approximately 20%–30% of patients are not happy after TKR. In a considerable number of patients, their need, demands, and expectations are not fully met. If we go by rheumatology journals, only 40% are pain free after TKR.” The crux of the matter is we are treating knee arthritis with artificial joint systems while still working on fully understanding knee joint anatomy, kinematics, bio-mechanics, tissue biology and perhaps additional, and as yet unknown, discoveries.

Dr. Sethi terms these interventions as fire-fighting methods with “halfway technology” in the garb of high-technology medicine. To him, true “high-technology” medicine is where the basic disease processes have been unraveled. “Then, the treatment quickly becomes simple, inexpensive, and effective.”

Enthoven expounded what he terms the “flat of the curve” medicine—the medical variation of the economic law—of diminishing returns when inputs continue to increase. Medicine should consider the possibility of contributing more by doing less. It should restore some awareness about the needs of the bottom 90% of rural and urban poor, instead of the increasing trend to use elitist technologies geared to the demands of the top 10% of our urban elite.

The mushrooming of a host of medical colleges, where admissions can be procured through the backdoor, all for a price, has hordes of parents, willing to shell out mind-boggling sums to make their wards doctors.

The Medical Council of India (MCI) and the government are equally to blame for this sudden spurt in the medical colleges. Had this been solely on the growing need of trained medical personnel for an increasing rural health and welfare program, it would have been understandable and justifiable, but there seem to be more ulterior and sinister motives at work.

Whatever these may be, they have caused a very piquant situation where money has become a huge and significant player. Both undergraduate and PG seats have a price tag, with orthopedics and radiology hitting the roof. There is no dearth of people willing to buy the commodity at this, or any price. What is baffling is that this investment by them cannot be, and they will not let it be, a dead investment. No one, not even someone who is not a businessperson, can perceive making dead investments of such magnitude. How this money will be recovered is what boggles the mind and rattles the conscience of those who still retain it.

Sarmiento is so right when he says that it has changed the concepts of the PGs, and where our PG teaching is headed. This is where it all begins, where Mr. Hyde takes birth. It is time for us to introspect.

The MCI in its wisdom added riders to the PG courses, necessitating the publication of a certain number of papers and presentation of papers and poster at conferences.

This has generated such a pressure on PGs that they are falsifying data, in fact cooking up studies to beat their deadlines.

I find myself on the horns of a dilemma when my PG confronts me with a paucity of patients, and data, and wants me to ignore his upscaling to enable him to submit his dissertation in time, and as per the protocol previously submitted.

The management of these private institutions tries desperately to influence the examination results, based as always on dubious considerations.
All this is pushing medical education in the country to the brink of an awful precipice, which in the long run, can only lower the standard of patient care, maybe irrevocably.

I am sure this is not where any sane and thinking orthopedic surgeon would wish to head. It is time to stand before the looking glass and introspect, before we reach the point of no return.

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