Article published online: 2023-10-05

Indian Journal of Plastic Surgery 1994; 27, 61 - 65
©1994 The Association of Plastic Surgeons of India

INDIAN JOURNAL OF PLASTIC SURGERY

WHAT AILS THE ACADEMIC PLASTIC SURGICAL SCENE IN INDIA? *

P S Chari,
Postgraduate Institute of Medical Education and Research, Chandigarh

Let noble thoughts come to us from every side

Rig Veda, 1-89-1

"As an ass carrying a load of sandalwood feels the weight only and not the fragrance of sandal, similarly those who have studied even many Sciences but are ignorant of the depths of meaning, carry the same only like an ass"

Sushruta Samhita - Sutra Sthana 4-4

I will begin my talk with an allegory. In the Odyssey of Homer, the hero Odysseus sets sail for his island home after the Trojan War. They wander over strange lands, have many adventures and land on the island of Circe where a beautiful woman greeted them. She was an enchantress whose hospitality, if taken, turned the visitors into pigs; and the island was full of pigs. The island of Circe is an allegory of what happens when a person or a nation comes under a spell. In this state the person loses the memory of himself; he is unable to see things clearly; he is no longer able to interpret what he sees; he loses the will to act and becomes highly suggestible. This is typical of the record of our medical fraternity since we adopted Western Medicine in the 19th Century. How else can we explain the prolonged barrenness in our scientific history? Let us not forget that in the last two centuries no Indian has developed a basic theory or concept which had an impact on the course of global medicine; no Indian group has discovered the cause or remedy of a single disease; no one from India has developed a drug or technology which influenced the practice of medicine worldwide.

Not only are we credulous, the spell destroys our will to action. Professor M S Veliathan in his speech at the inauguration of the New Academic Session at the PGI, Chandigarh, recently, gave an example. These days, Cardiac Surgery has a new excitement in myocardial vascularization - Transmyocardial Laser Revascularization (TLR). All the famous names are into it, laser companies are present in full force, glossy pamphlets have begun to rain on us and it is a question of time before some cardiac surgeon in India claims that he did TLR for the first time. What are the facts?

In 1965 - several years before CABG - Prof P K Sen of KEM Hospital, Bombay advanced the revolutionary concept of the snake heart operation to revascularize the myocardium. He noted that the snake heart myocardium was permeated by a vast sinusoidal system which was filled directly from the ventricular chamber, the coronary artery being insignificant. Prof Sen reasoned that primitive mechanisms for survival seldom disappeared with evolution though they may be superseded by more efficient mechanisms. He claimed that the dormant mechanisms could be reactivated provided a sufficiently strong stimulus was applied. Since ischaemia from coronary artery obstruction is such a stimulus he created myocardial ischaemia experimentally and drilled multiple holes in the L.V. myocardium from the external surface to the chamber. The bleeding from the holes stopped easily by finger pressure and Prof Sen claimed that the ischaemic myocardium improved in colour and defibrillated more easily. A few studies suggested that the needle channels remained patent after several weeks. There was much excitement following the paper and many laboratories in the US wanted snake hearts for dissection and investigators wanted to reproduce his experiment. The blow fell a couple of years later when Pifarre implanted a saphenous vein segment in the myocardium and demonstrated that the pressure within the vein was higher than the ventricular pressure throughout the cardiac cycle. This suggested that the myocardial perfusion could never take place directly from the chamber and Prof Sen's hypothesis was wrong. It occurred to no one that Prof Sen's hypothesis referred to the sinusoidal system and microcirculation which are different from an implanted saphenous vein. It was Mirhoseini who developed the technique of TLR with CO_2 Laser over a period of 20 years and established that direct myocardial perfusion from the chamber can occur. What really hurts is that no Indian scientist had the

* Text of the address delivered on 28 Sep 1994 at the 29th Annual Conference of the Association of Plastic Surgeons of India at Lonavala.

urge or will to develop Prof Sen's revolutionary hypothesis. We gave up too soon. We lack the will and the resolve not to quit which underlie every major achievement. We gained political freedom in 1947, but to gain mental freedom we need to do more than acquire knowledge and skills which we have in plenty. We need to rediscover ourselves as the inheritors of a 5000 year old civilization and as the direct descendants of men of genius like Charaka and Sushruta.

We judge ourselves by what we feel capable of doing, while others judge us by what we have already done.

Henry Wadsworth Longfellow

It is neither right nor possible to think of schools and academic learning as something apart from the life of the people and the community which the educational system is supposed to serve.

John Anthony Scott

Our country seems to be moving from crises to crises and the dilemmas and paradoxes bewilder us. Such periods are not new; we have experienced them many times in our long history. The difference today is that such information is widely and quickly spread by the media- newspaper, radio and TV - and pervades and affects our daily living and attitudes, values and behaviour. Daily we get bombarded by news of poverty and over population, tribal risings and caste wars, apathetic bureaucracy and corruption, drug abuse and the spread of AIDS, liberalization and the role of multinational corporations, erosion of the joint family, overcentralization, problems in peripheral states, terrorists, fundamentalists and scandals galore. We often see the working of the Nixon Political Principle - if two wrongs do not make a right, try three. Having more, doing more, but enjoying it less could be the slogan of our age.

In the "Olden days" the doctor-patient relationship was strong. The doctor, his skill and his prescience were the cornerstone of medicine. Now with more support the individual doctor has become only part of the medical scene. The permeation of urban culture into almost every area has diluted the sense of mutual responsibility. Commitments of family members to each other are becoming tenuous and unenthusiastic. The young wish to live alone and leave the old to die alone. "Doing your own thing" and "taking care of yourself first" are trite phrases for a virulent disease that has infected society and medicine and weakened the special bonding between doctor and patient. For the discerning patient the doctor has become a medical business person, marketing charm and competence without truly caring; still perhaps able to focus skills on the procedure but not capable of sustaining important medical duties. When a complication occurs, the doctor may instinctively hide behind assistants and nurses, who now become two-legged barriers to the patient. Little wonder that with the scene soured the patient may contemplate legal recourse.

Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world
The blood-dimmed tide is loosed and everywhere
The ceremony of innocence is drowned;
The best lack all conviction while the worst
Are full of passionate intensity

William Butler Yeats

The fame and prestige of a medical school, and the potentiality of its graduates for fame and success is related to the productivity of that school in advancing medical and surgical knowledge and in making discoveries. Examples are not lacking of medical schools with an old tradition drifting into the obscurity of the second rate after a generation of disregard. Conversely, obscure or recently established medical schools have jumped into the first rank by due attention to the capabilities of the clinicians they appoint to the staff.

Plastic surgery is best considered as no more or no less than, a method of surgery. It is a technique that was developed for the simple reason that the moving and handling of tissues with impaired viability called for an order of technical exactitude beyond that practised in the general run of ablative surgery. Success that is measured by visible results calls for its own standards and sense of values. These accrue only from an intense personal attention to detail to which we may add some sense of the aesthetic and an appreciation of the third dimension. The scope of Plastic Surgery is more disseminated than that of other branches, wherever these techniques can be applied with advantage. As one travels it is apparent that from place to place, and indeed from one plastic surgeon to another, there is a wide diversity in the application of their craft. Some are concerned more with repair after trauma, others work more with congenital anomalies, or in cancer surgery, while others focus more in the aesthetic field or microsurgery.

Surgery is not static; either in its scientific background or in its application. Plastic surgeons continue to develop new lines and seek fresh opportunities for the application of their experience

and techniques. To this process there is no end, for it is a natural evolution. Furthermore, as new developments come along, what has been an established line of practice in one era may be eclipsed in the next.

Education should not fall into the trap of equating factual knowledge with education. The cornerstones of education are cognitive knowledge, practical skills and balanced judgement and the human traits of kindness, courage and compassion.

We think according to nature;
We speak according to rules;
We act according to custom.

Francis Bacon

Shakespeare described the seven ages of man. Goldwyn describes four ages of the plastic surgeon. The earliest comprises the years of the residency - the next, the period after residency when new surgeons, to be successful, must unlearn part of their training; then comes the middle stage when the plastic surgeon is usually successful, if ever he is to be successful; the final stage is when seniority comes when other adaptive demands must be met.

Training in Plastic Surgery places the resident in a half-slave, half-free status. There is humour admixed with pain. In later years we recollect with a fondness that has replaced the fears that were felt at that time. Since most plastic surgery training programmes require a diploma in general surgery, they are required to adjust to put themselves in almost a junior resident frame of mind to begin learning a new area of surgery. This takes a shifting of mental gears that many trainees find difficult. During residency there is always someone more senior to provide support, to offer advice, and to protect when things go wrong. How one breaks out of residency with regard to establishing independence or dependence will determine much of what that person achieves professionally and within his own personal sphere. No matter how long is the training, one wonders whether he is truly prepared for a new professional life. Many residents by the time they have finished their long years of training have lost steam and want an existence that is materially adequate without being overly stressful. They are not by themselves unreasonable desires, but one would have expected them to have accomplished more. The choice is obviously each person's to make.

The consultant plastic surgeon has multiple roles and functions: the surgeon, the doctor (treating the patient as a totality), manager and administrator (office staff, residents, hospital personnel), confidant and friend (not only to patients but to other colleagues), visionary (going beyond one's predecessor's views), and the family and extracurricular man. The young plastic surgeons have tremendous potential, but unless they are careful, they may fall victim to what Alfred North Whitehead observed, "Youth is wasted on youth". Just as a house is built brick by brick, so is a reputation. There is no instant Gillies.

After being in practice for 10 to 20 years, the plastic surgeon is probably in the full flush of his profession. A surgeon who repeats one procedure more often becomes increasingly adept at the procedure and less sure in other undertakings. The cycle reinforces the trend to do more in a narrow range. In addition, new procedures will evolve for which perhaps he can never be trained. The danger of extreme specialization is the likelihood of our becoming technicians rather than plastic surgeons or physicians, and there is the hazard of arrested growth.

The essence of being a surgeon is performing operations. The older surgeon may try to undertake procedures that are beyond his capacity. The older surgeon is usually not so creative as in the past. As the ancient philosophers observed, the only constant is flux, a situation that relentlessly demands adaptation for survival.

"Where is the wisdom we have lost in knowledge;
Where is the knowledge we have lost in information?"

T S Eliot

It is an ancient and fundamental problem of all institutions to combine security with progress, tradition with discovery. Security without progress is stagnation and decay; progress without security leads to anarchy and ruin. Orthodoxy is defined as the holding of right or accepted views. In matters affecting the many, a generally accepted standard of orthodoxy is necessary, from which standard any departures are judged. Such departures are termed heterodox; they are continually being made in all directions, and those which stand the test of time, in time become orthodox. Tradition is, or should be, the accumulated wisdom of the past - wisdom rather than knowledge, because it includes elements not to be learnt from books but from the experience of life. Orthodoxy reflects chiefly the wisdom and learning of the past, and it provides the security of that wisdom. An orthodox surgeon can be trusted

to have as much learning as the last generation of his craft. This may seem a small commendation, but in real life, it is, in fact, a great one, because there is no assurance to the public that a surgeon has any learning at all. The value of orthodoxy is upheld by the machinery of examinations, degrees and associations that make certain that the surgeon does at least know something.

Tradition does not mean that the living are dead, but the dead are living.

G K Chesterton

Honest heterodoxy has no difficulty in obtaining a hearing, nor, if we can prove a case, in securing adoption. Rather, we are too easily wooed, too susceptible to the blandishments of the new. There are many examples of this mistaken eagerness. Heterodox methods, honest enough and sponsored by men of repute have been adopted and widely practised with sincere enthusiasm and faith only to be found worthless after an extended trial. Faith soon wavered, enthusiasm gave way to doubt, and doubt to profound disappointment.

For guidance we have the advice of St Paul, to prove all things and hold fast to that which is good. And the spirit of that counsel should pervade our attitude to surgery; the spirit and not the letter, for if we try all things, we will do a great deal of harm to our patients in finding that which is good. Therfore, before we try any new idea, we must first ask ourselves: Is it reasonable? Has it a scientific basis? Is it safe enough to try on a patient, or should I try it first in the laboratory? Has it, or anything similar, been done before, from which I can judge the chances of success or failure? If it has failed in the past, was failure due to a fault inherent in the method, or because of some factor important for success or safety unknown to the men who carried it out?

Originality cannot be taught. Some are born original, some achieve originality. The prophet with his disciples, the professor with his yes-men live in a world of fixed tenets. The clinical teacher who remains a student throughout life and surrounds himself by preference with why men can set a spark to the latent fire in those who surround him more certainly than the man who directs them to specific lines of investigation.

Only a mediocre man is always at his best

W Somerset Maugham

There is need to investigate how academics can pursue the ideal of quality. We must learn to realize that it is imperative to make self-evaluation periodically. The problem really is how to set out the key principles to determine the quality assurance programme. Devising ways of assessing quality is exceedingly difficult and requires much goodwill and cooperation. Educationists, not bureaucrats, should visit centres of higher education to assess faculty strengths and weaknesses, and collectively through insiders and outsiders, coordinate the quality assurance system. Senior professors and experts from relevant subjects can visit teaching departments and write reports on their performance. This practice of putting a department under scrutiny should be voluntary since a certificate of accreditation guarantees academic excellence. Assessed by proficient and honest members of the teaching community leads to better standards. Test results, job placement rates, and employer evaluation have to be introduced to see the institution's strengths and weaknesses. No effort must be spared to make academic life more attractive by improving the motivation of those contemplating academic careers.

Between the idea
And the reality
Between the motion
And the act
Falls the shadow

T S Eliot

To us, our profession is more than a trade, it is our life, an expression of our humanity. That humanity has three aspects - science, art and religion. We know, we feel, we believe. Many writers speak of the art and science of medicine, but none since Sir Thomas Browne has written of the religion of medicine. The three are necessary for a sane and balanced whole; for just as science and religion without art produce the fanatic, art and religion without science the mystic, so science and art unleavened by faith produce the virtuoso, the technical expert. The faith of medicine is expressed in the Hippocratic Oath: "the course I adopt shall be for the benefit of my patients, according to my ability and judgement." The welfare of the patient is the end we seek which thus becomes the surgeon's religion, a faith that must sometimes repudiate science and transcend art.

I began with an allegory. Let me conclude with an old Indian fable. Once a pregnant tigress, who was hungry, came upon a flock of sheep in the jungle and charged to catch her prey. In the stress of the

charge she delivered, collapsed and died. The helpless tiger cub grew up with the flock, playing with them, eating grass and going to the watering hole with them. Years passed, the tiger became full grown but behaved like a sheep. One day another tiger attacked the flock. He was astonished to see the sheep tiger, bleating and running scared with the sheep. He left the sheep and caught hold of the trembling sheep tiger and dragged him away to a stream. "Look at yourself in the water", he commanded: "do you not see that you are a tiger like me? Roar with me and be a tiger." My friends, in the field of medicine we have been bleating sheep for too long. Let us shake off the spell and be tigers.

Author

Prof P S Chari, MS, M Ch (Plastic), Head, Department of Plastic Surgery, Postgraduate Institute of Medical Education and Research, Chandigarh 160 023

Requests for reprints to Prof P S Chari, MS, M Ch(Plastic), 54, Sector 24-A, Chandigarh 160 023