Let’s fabricate ideas!

Urology has witnessed an unprecedented growth in technology but, unfortunately, this growth has remained limited to managing a few diseases and their surgical techniques rather than bringing about conceptual change in the overall management. In other fields of medicine, much of our energy and efforts have gone into restoring the functionality of organs of the human body and the day is not far when we would be able to replace diseased organs with the ones available off the shelf and probably inch forward toward becoming trans-human. Two key areas, where research for functional restoration has made significant changes, are bionic limbs\(^1\) and left ventricular assisted devices for complete heart failure\(^2\).

Similar efforts have not been seen in the realm of urological research. Although the prostate gland has received much attention thanks to the development of technology for its surgical extirpation, the rest of the genitourinary organs, the urinary bladder in particular, remain neglected to date. For the management of bladder cancer, nothing tangible has been achieved to address urinary diversion. The intestine is only a ‘second best option’ as a substitute to replace urothelium.

One can very well argue against this kind of research, stating that we are clinicians and that it is beyond our realm to spare time for all such things. Moreover, when a young mind is overfed with the ever-changing paradigm of techniques and technology and presented with the same idea repeatedly in a different garb, evolution takes a back seat. However, we are the think-tank of the society who primarily face and solve problems of our patients and, by collaborating with industry, we can bring in useful changes.

We all should reflect on the time and energy being wasted in an ever-increasing number of CMEs and workshops. We don’t discuss ideas to bring in conceptual change in treatment; instead spend time on repeatedly discussing techniques and technology, taking away the prime time and objective of such meetings. It is like ‘manufacturing perceptions by doing propaganda’ as was described by one of the best linguists, philosophers, and social critics of our time, Noam Chomsky in his book *Manufacturing Consent*.\(^3\)

In surgical literature, a new technology is welcomed with open arms, but why is it so that it fails to stand the test of time?

One of the interesting examples I can give to support this notion is of radical prostatectomy. More than a century ago, in 1904, Hugh Hampton Young and William Stewart Halsted at the Johns Hopkins Hospital in Baltimore conducted the first successful perineal prostatectomy for localized carcinoma prostate.\(^4\) Then, in the year 1945, retropubic approach was adopted\(^5\), and subsequently thanks to technology, laparoscopic radical prostatectomy. However, due to the inherent complications associated with the radical removal of the prostate, laparoscopic radical prostatectomy remained confined to the elite surgeons only.

A promising change was seen at the dawn of the new decade, when in 2000 robotic technology came in the scene and took the world by storm. No doubt, our knowledge of anatomy around the prostate and surgical technique has improved significantly. This has made robot-assisted surgery more accessible and is not limited to experts only. Subsequently, a single-port robot has come to the scene and now a new robotic tool has been developed to do the same century-old technique of perineal prostatectomy, highlighting the disadvantages of retropubic robot-assisted radical prostatectomy.

So, even after 110 years, the best approach to do radical prostatectomy remains elusive and, surprisingly, its need in itself is being questioned. The solution still remains elusive and the concept of stents that do not require removal, bringing in a new biomaterial to replace urothelium, or making a new bionic bladder or a cost-effective bionic sphincter for incontinent patients is still not available. A new biomaterial would change the way we treat our patients with stricture urethra, ureteric stricture, or provide a conduit or pouch for urine following cystectomy. The only reference to bionic bladders or prosthetic ureters is over two decades old and no new publication has come in this regard for long.\(^6-8\) When we are capable of reading every nucleotide of our gene pool not visible to the human eyes, then why have we stopped finding reasons for the formation of crystals for stones, which are visible to us? This speaks volumes about our skewed interest.

Should we continue hosting innumerable CMEs and workshops for the ornamental showcasing of multiple surgical techniques of achieving the same goal for over 100 years and without actually making a notable difference in management strategy?

I may sound cynical but the prime time of our educational activities is being hogged for propaganda and unfortunately, our youngsters have no quality education imparted to them,
Mandhani: Let’s fabricate ideas!

which should be the sole purpose of CMEs and workshops. Many of us have ideas to bring in changes in surgical practice, but they are not brought to the fore and invariably find their way to the grave. It is high-time the think tank of our urology society promote youngsters to present ideas and churn the best out of them. Similarly, we should move forward and stop restricting our thoughts to the number of cases done, the size of the tumor removed, or the size of the stone treated. This would not in any way change the paradigm of treatment!

Let us all wake up and invest our time to fabricate new ideas ably supported by the emerging fields of bioengineering, biotechnology, and artificial intelligence.

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