Editorial

The rise and rise of technology in urology– Cost-effective medicine vs. new treatments

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Innovation in health care has resulted in far-reaching improvement in healthcare. Advances in imaging technologies now allow us to non-invasively visualize and diagnose in ways that were not possible earlier. Minimally invasive surgery has significantly reduced the pain of surgery, and recovery and convalescence times. Technology has often been called a great leveler. In most areas, it has managed to reduce cost and improve access for the disadvantaged; but not always in healthcare. The advent of newer technologies has made treatment more expensive, often gutting it beyond the reach of the people for whom it is intended. In fact, technological innovation is believed to be a key driver of healthcare costs.[1]

The argument has been though the costs of care have increased due to technological innovation, the advances in patient care have been worth more than the expense.[2]

Undoubtedly newer technologies result in medical advances, and they are prone to overuse. For an equivalent condition, significant variation exists in care provided by different doctors across different regions. As Wenneberg has stated, "Lurking behind the variation in patterns of care are often huge hospital investments in expensive technologies that are directly tied to their economic stability."[3]

Technological advances are a good thing. They allow us to diagnose better and manage patients better – in short, save lives. The problem is not so much in its availability, but in its inappropriate use. Urology as a speciality is extremely technology dependent. We have been pioneers in incorporating and implementing innovation – from endoscopy to lasers and robotics. The ideal criteria for promoting new technologies should be based on scientific evidence. Do the benefits outweigh the harms? Are they an improvement on existing methods? And finally, are they cost effective?

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An oft-repeated poster boy of technical advancement is the role of robotic in urology. While the initial comparison of the pain, convalescence and transfusion rates of robotic prostatectomy were superior, it also pushed open surgeons to devise shorter incisions and better technique to compete as a minimally invasive strategy. There is a slight benefit in erectile function and potency rates, but relative advantages of robotic prostatectomy compared to "minimally invasive" open prostatectomy have diminished and are without significant improvement in outcomes.[4] An editorial in the New York Times by an oncologist and former White House advisor has gone so far as to call robotics a "fake innovation."[5] Conversely these outcomes in open prostatectomy have only been reported by very skilled surgeons in specialized high-volume centers. Will robotics allow even the less experienced and the less talented to achieve comparable outcomes?

We are now on the cusp of a new era where the conventional way of practicing urology may well be obsolete. The rise of the machines is perhaps inevitable, but its assessment is warranted. We need to vet technology in our conditions and have guidelines as we do for different diseases. It will be a failure if it is offered to a patient for whom it provides no benefit. The biggest challenge is not the technology, but overenthusiasm and its use without high-quality evidence. Mere equivalence may not justify use of very expensive technology and should not replace the well-established cost-effective treatments. In medicine, everything which is old may not be gold, but all the new ones that glitter may not be gold too.

As 2012 draws to close, the IJU begins its transition to a new era and Dr. Rajeev Kumar, the editor-elect of IJU, now shall be taking over the major editorial

functions and I will be in more of a supporting role. The way ahead is exciting and I am sure the dynamism of the new editor will take us to heights which were not scaled earlier.

I wish you all a very happy and peaceful 2013!

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