

Robotics to dominate future of surgery in India

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India got the taste of its first robotic surgery back in 2010 when for the first time, Gurgaon based Medanta hospital offered the same in cardiac, urology and gynaecology under one roof. It had joined hands with US-based Vattikuti Foundation and launched Medanta Vattikuti Institute of Robotic Surgery (MVIRS). Back then this minimally invasive surgical technique was watched with much awe as the development was considered historical in nature. From just 6 machines few years down the line, our country has reached 28 robotic machines in 2014. India at the moment stands at fourth position and is expected to be at 2nd position after the United States.

Beaming with a great amount of confidence is the chairman of Vattikuti Foundation, Dr Raj Vattikuti who during his interaction with the *BioSpectrum*, threw light on the untouched aspects of surgical innovations. "Surgical robots are gradually making inroads into the Indian operation theatre. Vattikuti Foundation is committed to bring advance surgical technology to the common men. The Foundation is well on the way to achieving its target of 300 fully trained robotic surgeons. Soon, we will have fifty high volume robotic surgery programs all over the country," said Dr Vattikuti.

The Vattikuti Foundation, a non-profit organization that was founded by Raj and Padma Vattikuti in 1997, is now aiming to install 40 machines by the end of 2015.

Can the underdog section afford it?

Among the major targets in the area are affordability, increase in volumes and developing skill sets. The cost of any Robotic surgery (also called computer aided digital tissue interaction) can be brought down between Rs 1 lakh to 1.5 lakh per surgery if the volumes go up from current 3.5 thousand surgeries to 20 thousand surgeries a year.

To this question, the Foundation chairman says that it is committed to make robotic surgery and other technologically advanced medical procedures of the future cost effective and available to underprivileged communities. It recently organized "Vattikuti Global Robotics 2015" three day multispecialty Robotic Surgery Conference (VGR) at New Delhi to provide a comprehensive and exciting program dedicated to the work of robotic surgeons in various specialties.

Currently, the machines that could cost anywhere between 12-18 crore are installed at All India Institute of Medical Sciences (AIIMS), New Delhi; Post Graduate Institute of Medical Research (PGIMER), Chandigarh; Tata Memorial Hospital, Tata Memorial Hospital, Mumbai; Apollo Hospital, Delhi; Gangaram Hospital, Delhi and Medanta, Gurgaon. All these have functional systems that can deliver surgeries primarily in cardiology, gynaecology, urology etc. The cost though variable can go upto Rs 2.5 lakh which might be higher than any normal surgery but more safer than conventional ways.

The foundation also unveiled 25 high volume fully trained robotic surgeons at the conference. With its 25 truly multidisciplinary programs with close to 150 skilled surgeons contributing to approximately 3,000 procedures per year, the foundation will continue its commitment of being a leading partner in the growth of robotic and other minimally invasive surgical techniques throughout India and the world.

As per Dr Mahendra Bhandari, CEO, Vattikuti Foundation, "Robotic surgery has various advantages over the conventional methods of surgery greater surgical precision, increased range of motion, improved dexterity, enhanced visualization and improved access for the surgeon. Vattikuti Foundation is ushering in a new wave of innovation, analytics and cost savings in the field of surgical science. It was imperative that we convene the early adopters of robotic surgery at one event to help educate the industry on this ground-breaking new trend."

The Vattikuti Foundation is present in the United States, Europe, Great Britain and India, has collaborated with multispecialty hospitals and institutes to develop independent multispecialty, state-of-the-art institutes within their main campus. It has also been involved in various philanthropic initiatives since 1997 in the area of healthcare and poverty alleviation.

Will it ever be 'Make in India' for robotics?

Presently, through the Vattikuti Foundation Robotic Surgery Initiative (VFRSI), the Foundation is supporting the growth of the "da Vinci Surgical system", manufactured by Intuitive Surgical, which represents the current state-of-the-art in a minimally invasive surgery and used in several surgical specialties including Urology, Colorectal Surgery, Cardiovascular Surgery, Gastrointestinal Surgery, Gynecology, Thoracic Surgery, Bariatric Surgery, Thyroid Surgery, Oncology, Children's Surgery and Transoral Surgery.

On being asked about the monopoly of one company in the area, Dr Bhandari opined, "Monopoly in robotics like any other area won't last until eternity. The scenario certainly is going to change. With right environment and policies, I am sure that things will change. However, the critical volume and skill sets will help in achieving the manufacturing in India in future."