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Ottobock brings bionic prosthetics for Indian amputees

12 March 2020 | News

Launched the Osseointegration surgery, a life-changing surgical technique, in the country



Orthopaedic surgeon Dr. Aditya Khemka along with Ottobock, a global leader in prosthetics recently introduced the Osseointegration technology as a disruptive, innovative procedure to help amputees in India return to an active social and economic life. India records a large number of individuals with various disabilities with a roughly 0.62 amputees per thousand population.

Osseointegration is a radical procedure where a skeletal connection with prosthetics is achieved through a titanium implant in the bone of the amputee. This creates an interface that connects directly onto a prosthetic limb. The resulting bionic leg – in which bone and muscle growth around the upper part of the rod and a system of hydraulics, and microprocessors drive the lower limb – allows amputees to control the limb more intuitively, almost naturally.

Ottobock was chosen for its robust 100-year history of med-tech expertise in the global amputation treatment and rehabilitation space. Pioneering the technology for wearable human bionics, the healthcare multinational is committed to improving the lives of its consumers by helping them gain mobility freedom while preventing potential complications. Ottobock offers a range of custom made prosthetic with advanced technology that includes microchip fitted prosthetics and a mobile application to monitor movements. They have around 30 centres around the country. Currently, all their prosthetics are produced in Germany.

Mr. Bernard O'Keeffe, Managing Director & Regional President, Asia Pacific, Ottobockadded, "Otto Bock is achieving new frontiers in amputation care. In India, we have always tried to use our global experience to find locally suitable solutions while leveraging cutting-edge technology. If after osseointegration, an inexperienced or unskilled healthcare professional fits the prosthetic components, it can lead to an adverse impact on the implant and the outcomes can be damaging for the patient. We, therefore, ensure that we draw from 100 years of our company's experience and use globally established protocols to fit osseointegration patients with prostheses." He also shared his future plans for ottobock's production of prosthetics in India, following a collaboration with Government of India to open up a production facility in Kanpur.

Speaking on the life-changing potential of the surgical innovation, Dr Aditya Khemka, Orthopaedic Surgeon with super-specialisation in Osseointegration, who also chaired the event, commented, "Osseointegration is a new dimension to the process in which amputation reconstruction is done. The most important and hence a 'bottleneck' part of the prosthesis is the socket. The socket is custom made and skill dependent whereas components like knee and foot are prefabricated and standardised. So if the socket is not right, even with the best of components, the prosthesis will not deliver a complete outcome. Osseointegration deletes socket issues leaving no scope for skin break-downs or discomfort. It offers many other benefits like quick removal and wearing of the prosthesis, better 'feel' of the ground below due to direct bone contact, etc. The outcome is always improved energy transfer and control of the prosthetic leg restoring mobility in the patient.

Presently only 6 surgeons all around the world are trained to perform osseointegration and around 800 people globally have benefitted from it. It costs around more than 6-7 lakhs depending on the individual amputee and the complications. In India, Dr Aditya operates out of Hinduja hospital in Mumbai, the only centre in India where it can be performed currently. He shared that as this process becomes more common and more doctors are trained to perform it countrywide, the costs can be brought down to what it usually costs for traditional prosthetics.