

BIOMECHANICS, BIOENGINEERING & AUDIOLOGY

November 07-08, 2016 Las Vegas, USA

Design and development of gastrostomy feeding button

Shubham Ramteke¹, Aneesh Kale¹, Gaurav Gupta¹ and Rashmi Uddanwadiker¹, Rajendra Saoji²

¹Visvesvaraya National Institute of Technology, India

²Midas Multispecialty Hospital, India

Some children have medical problems that prevent them from ingesting food and liquid through mouth. To fulfill the nutritional needs of such children a G-tube is used. A G-tube (gastrostomy tube) is a tube inserted through the abdomen that delivers nutrition directly to the stomach. It's one of the ways doctors can make sure kids with trouble eating, get the fluid and calories they need to grow. Currently used G tubes are inadequately designed. The problems with them include dislodgement/migration, tube leakage, site infection, tube obstruction and other symptoms (Eg., abdominal pain). Also Imported G-tubes are very expensive for a considerable number of people particularly for Asian and Indian population. To tackle all these problems, the newly designed implant is split into two parts- hard outer cover and soft *inner tube* with flanges- making it more capable to handle the medical issues and eliminate the need for multiple implants (as the child grows). The cover, which has an inherent draft, needs to be implanted only once for the entire period of treatment. According to the nutritional essentials need, the inner tube of appropriate lumen is then placed inside the cover. This new implant design and the accompanying manufacturing method takes care of the afore mentioned problems. The manufacturing method and simplicity of the design considerably cut down the cost of the implant making it affordable for masses. This new implant will help make gastrostomy feeding not only more problem-free but also available to more children who've been deprived of this medical care standard only because of the financial depravity.

ShubhamRamteke11@gmail.com