A simple surgical technique for closure of apical muscular VSD using polytetrafluoro-ethylene device

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Objective: Ventricular septal defect is among the commonest congenital heart diseases encountered in pediatric cardiac patients. Apical muscular ventricular septal defect constitutes nearly 2% of defects, which may or may not be associated with other congenital heart defect. The purpose of our presentation is to present our innovative and simple surgical technique using custom made low profile polytetrafluoroethylene (PTFE) single disc device for closing multiple apical muscular and isolated apical muscular ventricular septal defects and to present the possibility of its commercial use.

Method: Between January 2010 and Dec 2014, thirty two patients with isolated or multiple apical muscular ventricular septal defects with or without associated heart diseases were operated at our institute. The apical VSD was closed using our custom made low profile single disc Polytetrafluorooethylene device. The operative technique and the technique used to prepare the single disc device will be presented in the conference.

Conclusion: Our custom-made device can be tailored and prepared in-house in 10 minutes. Finally, the cost of our single disc device is $100, whereas the cost of a commercially available device is nearly $1300. The use of our device would therefore drastically bring down the expense of the total procedure and make it significantly more affordable for patients of lower economic strata. The technique described by us has the advantage of apical VSD closure through left ventricle without left ventriculotomy. Our technique is simple and cost effective.

Biography
Amit Mishra is associate professor with the pediatric cardiac surgery unit of the renowned Ahmedabad-based U N Mehta Institute of Cardiology and Research Centre in Gujarat, India for the past nine years, 47 year old Dr Amit Mishra is a reputed name in his field of work. Performing over 700 pediatric heart surgeries annually, Dr Mishra is known both for his expertise as a cutting edge surgeon as well as for his dedication, sincerity and his hard work. Trained at the world’s largest heart hospital, Narayana Hrudayalaya at Bengaluru, Dr Mishra has also done advanced observer training at the Stanley Children’s Hospital at Edmonton in Canada and the Birmingham Children’s Hospital in UK. Dr Mishra did his schooling as well as his medical studies and super specializations from India itself. Hailing from a humble middle class family from central India, Dr Mishra has made a mark for himself in the medical field through sheer dint of merit and passion for the medical profession. He has to his credit over 30 articles on various aspects of pediatric cardiac surgery in reputed journals in India and abroad. An avid golfer in his leisure time, Dr Mishra is also a deeply spiritual person.

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