Retrospective Analysis of the Results of Surgical Treatment of Patients with Long strictures and obliterations of the urethra

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Abstract

Pectus excavatum (PE) is a chest wall deformity characterised by a depression at the xiphisternal junction. It is seen in around 1 in every 400 births and has a male preponderance with a male to female ratio of between 9:1 and 2:1 (S. K. Kolvekar, 2015; Ravitch, 1977).

Those with PE often experience the limiting psychological sequalae of living with the deformity, suffering with body dysmorphic disorder, encompassing symptoms of low self-esteem, embarrassment and avoidant behaviours (S. K. Kolvekar, Simon, & Kolvekar, 2015).

Cardiopulmonary function may also be compromised with one study showing patients with PE to have a lower maximum cardiac index (a function relating body surface area to left ventricular cardiac output in 1 minute) during exercise and a lower FEV1 (forced expiratory volume in 1 second) as compared to controls (Maagaard et al., 2013). The same study showed the maximum cardiac index to increase significantly following surgical correction (Maagaard & Pilegaard, 2015; Maagaard et al., 2013). Notably, results from a large autopsy series have confirmed that patients with PE died earlier than matched controls (Kelly, Lawson, Paidas, & Hruban, 2005), indicating that PE may be associated with increased overall mortality.

PE can be corrected surgically with the Nuss procedure. Indications for surgery include a Haller Index of 3.5 (the extent of depression as measured on a CT scan) associated with considerable psychological symptoms or signs of reduced exercise tolerance or fatigue. The Nuss procedure, pioneered by Dr Donald Nuss in 1987, involves placement of two metal bars behind the sternum; these bars mechanically lift the depressed segment and secure it in an elevated position for 3 years (Nuss, Kelly, Croitoru, & Katz, 1998). After 3 years, the bar is removed. It is a minimally invasive procedure that only requires two lateral thoracic incisions in order to insert the bar. In our centre, patient-controlled analgesia is given to control pain following the surgeries due to favourable patient satisfaction data (S. Kolvekar, Pilegaard, Ashley, Simon, & Grant, 2016). Surgical intervention improves both cardiovascular and respiratory symptoms and measures (Fonkalsrud, Dunn, & Atkinson, 2000; Maagaard et al., 2013).

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Biography:

Professor Shyam Kolvekar is one of the leading cardiothoracic surgeons in London, currently working at St. Bartholomew's Hospital. He is honorary Associate Professor at University College London and involved in several research projects. He is visiting Professor at Manipal Medical College in India. He has a special interest in mitral valve repairs, beating-heart surgery, cardiac arrhythmias and minimally-invasive cardiac surgery and is concerned with ischaemic pre-conditioning of the heart. He also has a thoracic practice dealing with lung cancer, pneumothorax and pleural effusion.

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