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HYBRID AORTIC INTERVENTION: THE TEAM APPROACH

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Introduction

Thoracic aortic diseases involving aortic arch and descending thoracic aorta are the most challenging group of conditions and conventional treatments are associated with significant morbidity and mortality. In recent years, a hybrid approach combining thoracic aortic endovascular aortic repair (TEVAR) and minimally invasive surgery results in better clinical outcomes

Objectives

To provide better service to patients with thoracic aortic diseases through a team approach.

Methodology

We prospectively studied patients underwent TEVAR in Prince of Wales Hospital from 1/2008 to 12/2013. A multi-disciplinary team including Cardiothoracic surgeons, Vascular surgeons, Interventional radiologists, Anaesthetists, Perfusionists and designated nursing team held regular meeting to evaluate patients' pre-operative images, to determine best interventional approach and review post-operative outcomes. Patients' demographics, operative procedures, post-operative complications including bleeding, stroke, paraplegia and mortality were recorded. Data was prospectively collected and entered for analysis after being validated by a research assistant.

Result

: A total of 85 patients received TEVAR during the study period. There were 7 patients with total aortic de-branching, 38 patients with extra-anatomical bypass of head and neck vessels to facilitate TEVAR. Two patients developed post-operative bleeding requiring re-exploration. Three patients developed minor stroke and 3 patients developed paraplegia that resolved after lumbar drain for cerebral spinal fluid drainage. The overall procedural related mortality is 2.5% (1 from retrograde type A

dissection, 1 from ruptured false lumen) and 30-day mortality is 6.4%. The overall survival at 1 year, 3 year and 5 year are 86%, 83% and 81% respectively. In modern era, the multi-disciplinary team approach to thoracic aortic pathologies results in better clinical outcome. The team approach ensures best clinical care delivered to patients and timely audit to ascertain our outcome is in par with international standard.