

# **EXPERIENCE AND RESULTS WITH PULMONARY THROMBOENDARTERECTOMY-A SINGLE INSTITUTION EXPERIENCE IN THE INDIAN SUBCONTINENT**

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## **Abstract**

### **OBJECTIVE**

In the Indian subcontinent the popular belief is that pulmonary embolism and its sequelae are less prevalent in the population when compared to the West. Pulmonary Thrombo Endarterectomy (PTE) is the only curative option for patients suffering from Chronic Thrombo Embolic Pulmonary Hypertension (CTEPH). Here we analyse the outcomes for PTE in a single institution from 2004 to 2010.

### **METHODS**

Between June 2004 and December 2010 209 patients referred to our institute with CTEPH underwent Pulmonary Thrombo Endarterectomy. The diagnosis was based on 64-slice CT Pulmonary Angiography. The data was analysed retrospectively.

### **RESULTS**

209 patients in the 15-69 year age group underwent PTE between June 2004 and December 2010. The male: female ratio was 1.5:1.205 patients had CTEPH, 4 had acute pulmonary embolism with unstable hemodynamics and failure of thrombolysis. Two patients underwent redo PTE. 154 cases were isolated PTE while 55 were combined procedures. 47.8% (100/209) had proven deep venous thrombosis .The overall mortality for the procedure was 12.9% (27/209). The causes of mortality were persistent pulmonary arterial hypertension in 66.6% (18/27), reperfusion edema in 22.2 % (6/27) and mechanical injury in 11.1%(3/27).The pulmonary arterial pressure regressed to <40 mm Hg in 71.7% (150/209) .The mean duration of ICU stay was 6 days (3-50).The mean duration of ventilatory support was 3.3 days (1-19).15 patients required Extracorporeal Membrane Oxygenation (ECMO) support for varied reasons. Of these, there were two survivors. The mean duration of hospital stay was 13 days (9-60). Two patients died out of hospital, one of recurrent pulmonary embolism following discontinuation of anticoagulation and one of persistent pulmonary arterial hypertension.180 patients are still on regular follow up, and 30 of them have persistent pulmonary hypertension with NYHA class I-III symptoms. The rest are doing extremely well with good quality of life.

## **CONCLUSIONS**

Pulmonary embolism and its sequelae are very prevalent in the Indian subcontinent contrary to popular belief and is often underdiagnosed. PTE can be performed with minimal perioperative mortality providing excellent functional results in almost all cases.