

CONGENITAL BRONCHOPULMONARY MALFORMATIONS: IS INFECTION A RISK WITH CONSERVATIVE MANAGEMENT?

Mahmoud Marei^{1,2}, Ewan Brownlee¹, Fraser Munro¹

¹Royal Hospital for Sick Children, Edinburgh, UK, ²Cairo University, Faculty of Medicine, Cairo University Specialized Pediatric Hospital, Department of Pediatric Surgery, Cairo, Egypt

Introduction and aim: There is little consensus or evidence to support decisions to operate upon congenital bronchopulmonary malformations, versus conservative observation. We present our centre's experience, and highlight the progress and outcome of cases managed conservatively.

Methods: We retrospectively built a database of 55 cases that presented to our centre over the last 10 years (2006 - 2016), by reviewing all chest CT scans for infants 1 year old or less, and our electronic surgical audit database for cases coded under lobectomy, lung biopsy, thoracotomy, thoracoscopy, excision of oesophageal duplication or excision of bronchogenic cyst. For every case, we reviewed the electronic patient record, progress notes, surgical and respiratory clinic letters, operative notes and all imaging modalities done. Our standard approach following antenatal diagnosis is a CT scan with contrast under GA at the age of 6 months.

Results: Congenital lobar emphysema and segmental overinflation were 11 cases, and excision was performed in eight. CPAM with no systemic vascular supply were 26 cases. Eighteen were excised and 8 observed. Lesions along the CPAM-Sequestration spectrum with confirmed systemic vascular supply were 11 cases, 9 were excised, and 2 conservatively observed. Bronchogenic and duplication cysts were 7 cases, 6 were resected and 1 observed. Overall 32 cases (60%) were antenatally diagnosed. Among the 14 cases (25%) managed conservatively, 10 cases (70%) were antenatally diagnosed. Repeat CT scan was done in 3 cases with chest infections, in none did this involve the lesion, and all settled with continued non-operative management. The median follow up of conservatively managed cases is 77 months (range 36 – 107 months).

Conclusion: No conservatively managed case had infection within the lung lesion, and none were converted from conservative management to surgery. The risk of infection seems minimal and this alone does not justify surgery in asymptomatic cases.