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## FEASIBILITY OF THORACOSCOPIC SURGERY IN THE MANAGEMENT OF PAEDIATRIC INTRA-THORACIC TUMOURS

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**Aim:** Traditionally, most paediatric mediastinal and intra-thoracic tumours are biopsied or resected by open surgery with associated morbidity. The application and feasibility of Thoracoscopy in the management of paediatric thoracic masses may represent an important adjunct and remains to be evaluated. We evaluate the feasibility of thoracoscopic surgery in the management of paediatric intra-thoracic tumours.

**Methods:** This study included all the patients referred to our unit for the management of thoracic tumours from 2000. Data was analysed for demography, operative indication, post-operative morbidity and outcome.

**Results:** Forty cases (20 female) were referred for Thoracic surgery (both benign and malignant conditions) at the median age of 6 years (range 9months to 16years). Thoracoscopic surgery was carried out in 21 cases while it was thought to be not feasible due to size of the tumour, vascularity and location in 16 cases. The conversion was required due to excessive bleeding in 2 and removal of large solid tumour in one patient. CT with IV contrast and/or MRI were used as the imaging modality for anatomical localisation, extent and vascularity. The thoracoscopic procedures included either resection [benign conditions: lymphatic malformations (2), mediastinal tumours: neuroblastoma (7), teratoma (1), schwannoma (1), myofibroblastic tumour (2) and angiofollicular hyperplasia (1)] or biopsy of mediastinal or lung parenchymal lesions (7). Postoperative chest drain was inserted only in minority of cases that involved lung parenchyma resection and possibility of lymphatic leak. Complications included inadvertent phrenic nerve palsy presenting as diaphragmatic eventration in 3 cases. Follow up showed no recurrence in any of the tumour cases and biopsies resulted in diagnosis, leading to an appropriate oncological management.

**Conclusion:** Thoracoscopic procedures for paediatric intra-thoracic tumours are safe and feasible in appropriate cases referred for thoracic surgery resulting in good outcome.