INCEPTION OF A FULL ROBOTIC, TOTALLY ENDOSCOPIC THORACIC SURGERY PROGRAMME IN A EUROPEAN UNIT AND INITIAL RESULTS

J. Baste, F. Nouhaut, M. Bubenheim, P. Rinière, J. Melki, C. Peillon
1 General and Thoracic Department, 2 Department of Biostatistics, Rouen University Hospital, Rouen, France

Objectives: Recent publications from high volume centres have demonstrated safe and efficient robotic thoracic surgery. We report the set-up process of such a programme and early results in an average volume unit.

Methods: Retrospective review of a single institution database. The programme was launched after a six months’ preparation period.

Results: From January 2012 to March 2013, 37 (18 male) totally endoscopic, full robot-assisted procedures were performed. The median patient age was 55 (49-65) years and American Society of Anaesthesiologists score was 2 (1-2). Indications included: anterior mediastinal tumour (10, 27%), myasthenia gravis (2, 5%), schwannoma (1, 3%), bronchiectasis (2, 6%), bronchogenic cyst (1, 3%), parathyroid adenoma (2, 6%), nodal staging (2, 6%), lung nodule (12, 32%) and lung carcinoma (5, 12%). Operative procedures included: thymectomy (14, 38%), lobectomy (14, 38%), segmentectomy (5, 14%), posterior mediastinal mass resection (1, 2%), lymphadenectomy (3, 8%). No conversions were required and median blood loss was 50 (20-100) ml. Median operative time (all procedures) was 135 (105-165) min. CO₂ insufflation was used in 35 cases (95%). Postoperatively, median chest drainage was 3 (2-4) days, hospital stay 5 (4-5) days, and postoperative pain score 4 (4-5). Minor complications occurred in 5 (19%) patients. At 4 (2-7) months median follow-up all patients were alive and well.

Conclusions: This series suggests that a full robotic, totally endoscopic thoracic procedure is a safe and effective treatment for varied pathologies, with low morbidity and without a significant learning curve. This technology should go along with the development of minimally invasive thoracic surgery. The cost involved requires prospective benefit studies.