

## SIX10: MINIMALLY INVASIVE TREATMENT FOR SPONTANEOUS PNEUMOTHORAX IN ADOLESCENT

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**Background** The main reasons of spontaneous pneumothorax are apical segment bullae formation and blebs. Video-Assisted Thoracoscopic surgery (VATS) is especially advantageous to reach apical segments and for easy resections. We retrospectively evaluated the patients with spontaneous pneumothorax who were treated with thoracoscopic resection.

**Materials and methods** We retrospectively collected the data of patients with spontaneous pneumothorax who were operated with VATS between 2010 and 2017.

**Results** Nine patients (7 male, 2 female) were operated with VATS in our hospital with spontaneous pneumothorax. Median average age was 16.4 (14–17) years. Computed tomography of lungs presented bleb formation at apical area was the most common findings. All of the patients continuing air leakage on tube thoracostomy were operated with VATS and stapler was used for resection. Apical lobe resection due to the presence of bullae formation was the more common aetiology. Average tube thoracostomy time was 3.3 (3–5) days postoperatively. Bleb (most common), Congenital Cystic Adenomatoid Malformation (CCAM) type 2, chronic emphysematous tissue and granulomatosis due to histiocytosis were diagnosed on pathological analyses. Post operative follow up time was 2 (0.5–5) years without any complication.

**Conclusions** Blebs, CCAM, granulomatosis and emphysematous lung tissue can cause spontaneous pneumothorax. Thoracoscopic resection should be the first choice as it is an minimal invasive surgery with the advantage to reach lesions even in apical tissues.

**Key words** spontaneous pneumothorax, video-assisted thoracoscopic surgery, bullae formation