



# Medical Thoracoscopy for Tubercular Pleural Effusion in Children

Manoj Madhusudan<sup>1</sup> · Kaustubh Mohite<sup>2</sup> · Tejaswi Chandra<sup>3</sup> · Priyanka Potti<sup>1</sup> · Srikanta JT<sup>1</sup>

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*To the Editor:* Tubercular pleural effusion (TPE) is the second most common cause of extra pulmonary tuberculosis (EPTB), accounting for about 10% of pediatric TB cases in India [1]. Due to the paucibacillary nature of TPE in children, microbiological confirmation is often difficult having yield less than 16% in pleural aspirate [1]. Medical thoracoscopy (MT) with pleural tissue biopsy has a microbiological yield as high as 70% in adult pleural TB [2]. Data regarding the same is sparse in children because of relative rarity of MT being performed respectively [3, 4]. We conducted a retrospective study of children with TPE who had undergone MT in our centers.

A total of 18 children underwent MT during the study period (June 2020- June 2023) across 2 centers; 15 were diagnosed to have TPE. All children had a unilateral disease, which was predominantly right-sided ( $n = 12$ , 80%). The procedure was carried out using a flexi-rigid thoracoscope (LTF-160, Olympus Medical Systems, Tokyo, Japan), inserted through a 10 mm trocar. Pleural fluid analysis showed exudative effusion in all children, showing lymphocytic leukocytosis. On MT, adhesions were observed in 12 cases (80%) whereas the classical sago grain follicles were seen in 9 (60%). The sensitivity of Acid Fast Bacilli smear (3/15), Gene Xpert Ultra (11/15) and TB culture (12/15) was 20%, 73%, and 80% respectively whereas all children had a necrotizing granuloma on HPE (15/15, 100%). Apart from mild bleeding at the biopsy site and postoperative pain, there

were no significant postoperative complications observed. Overall, a microbiological confirmation of TPE, with either Xpert Ultra or culture, was achieved in 13/15 (87%) children. With an exceptional microbiological yield, having no major procedural complications, MT seems a safe and an effective intervention for diagnosing TPE in children.

## Declarations

**Conflict of Interest** None.

## References

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✉ Manoj Madhusudan  
manoj-93@live.in

<sup>1</sup> Department of Pediatric Interventional Pulmonology and Sleep Medicine, Aster CMI Hospital, New Airport Road, Sahakar Nagar, Bengaluru, Karnataka, India

<sup>2</sup> Department of Pediatric Pulmonology, Sai Child Care Hospital, Panvel, Maharashtra, India

<sup>3</sup> Department of Pediatric Pulmonology, Aster Whitefield Hospital, Bengaluru, Karnataka, India