8th WORLD CONGRESS of PEDIATRIC SURGERY
WOFAPS
12-15 November 2025
Titanic Mardan Palace Hotel
ANTALYA, TÜRKİYE

Congenital Broncho-biliary fistula : Report of a Case and Review of the Literature

Introduction

Congenital bronchobiliary fistula (CBBF) is a rare foregut anomaly involving an abnormal connection between the airway and biliary tract. Symptoms typically appear in neonates, including apnea, bilious secretions, and choking. Severity often reflects timing of onset. CBBF is commonly associated with biliary anomalies like atresia. Definitive management requires surgical excision.[1,2]

Case Report

An 11-month-old female presented with persistent cough from day five of life, accompanied by yellow sputum, vomiting, and post-feeding respiratory distress. Despite NICU admissions and antibiotic therapy, symptoms persisted. Examination showed respiratory compromise without cyanosis or jaundice. CT and HIDA scans were inconclusive, but MRCP identified a beaded tract from the left hepatic lobe to the right main bronchus, indicating a congenital bronchobiliary fistula. Surgical exploration confirmed the diagnosis, and the fistula was successfully ligated via laparotomy with intraoperative cholangiography. Postoperative recovery was smooth, follow-up imaging was normal, and the patient remained symptom-free.

Figure 1; Photograph *of the patient's yellowish sputum*

Discussion

CBBF is a rare anomaly first reported in 1952, with early cases often fatal before surgical repair became feasible. Diagnosis is often delayed due to nonspecific symptoms and overlap with other causes of bilious emesis[3]. In this case, diagnosis was delayed for eight months. While bronchoscopy and HIDA scan are commonly used, MRCP alone was diagnostic. The fistula extended from the left hepatic lobe to the right main bronchus. No similar regional cases were found, highlighting the value of sharing this experience.

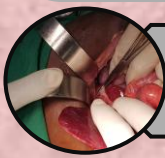

Figure 2; A Photograph showed *division and ligation of the fistula*

Conclusion

Congenital bronchobiliary fistula is an unusual condition. Misdiagnosis or delayed diagnosis is very common due to its rarity, and it requires a high degree of suspicion to diagnose. Bilious sputum should alert pediatric physicians to investigate the possibility of a bronchobiliary fistula. MRI MRCP, HIDA scan, and bronchoscopy are essential to confirm the diagnosis. Management of such a case is challenging but rewarding.

References

1. Neuhauser EBD, Elkin M, Landing B. *Amer J Dis Child*. 1952;83:654.
2. Liu Y, Li Y, et al. *World J Clin Cases*. 2019;7(7):881–888.
3. Zhang Y, Zhang J, et al. *Front Pediatr*. 2021;9:686827.

Isam Ahmed Abdeljaleel Taha [1], Mohamed Y Ibrahim [2], Mohamed Helali [3], Maher A. A. Yousef[4],, Sami Mohamed Elamin Taha [5]