PE 050

International Surgical Week
The World's Congress of Surgery
isw2024.org
Kuala Lumpur, Malaysia
25-29 August 2024

Addressing a Rare Escherichia Coli Subdural Collection in an Infant Post Meningitis: A Case Report on Effective Burr Hole and Drainage Intervention

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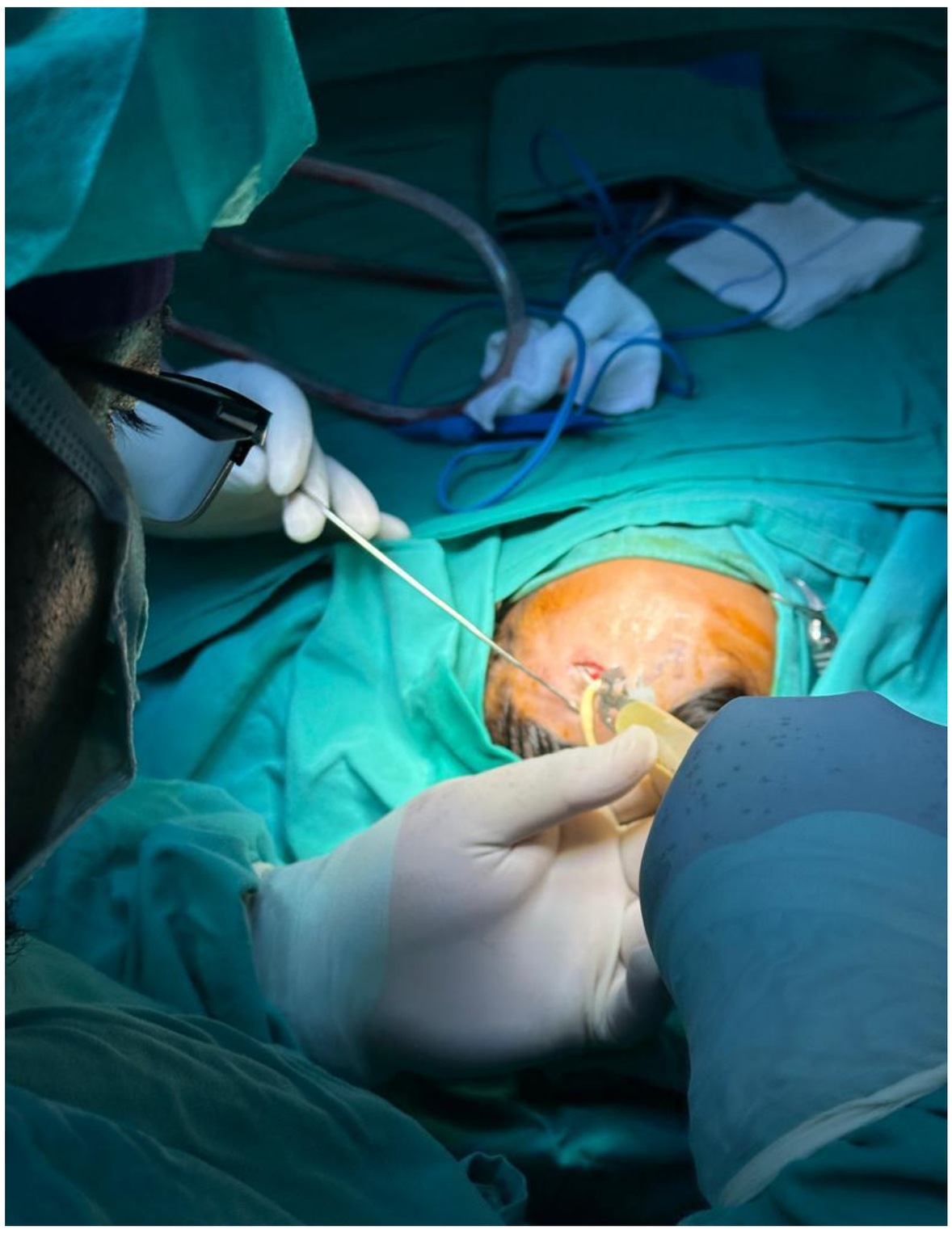
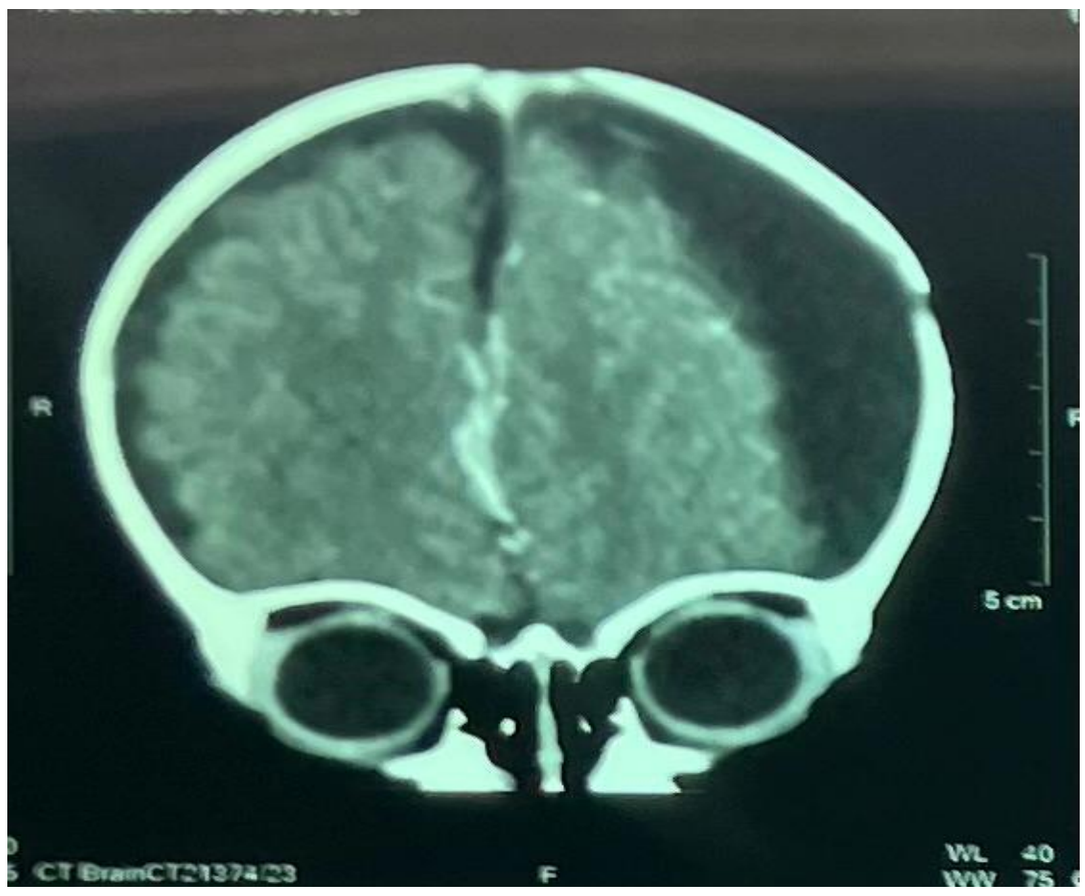
SEREMBAN SURGICAL SOCIETY SINCE 2019

Introduction

Subdural collection post meningitis is a complication observed in infants affected by meningitis. This case report delves into the rare instance of an Escherichia coli subdural collection in a 3-month-old infant following bacterial meningitis, a complication commonly associated with streptococci and staphylococci.





Case Report

The infant initially manifested symptoms of fever and reduced oral intake, initially misdiagnosed as viral fever. However, on the second day of admission, the patient encountered status epilepticus, resulting in a generalized tonic-clonic seizure. Subsequent to the seizure, a computed tomography scan unveiled bilateral subdural effusions, notably more pronounced on the left side and devoid of hydrocephalus. The blood investigations showed leucocytosis, and high C-Reactive Protein. Liver and renal functions were normal.

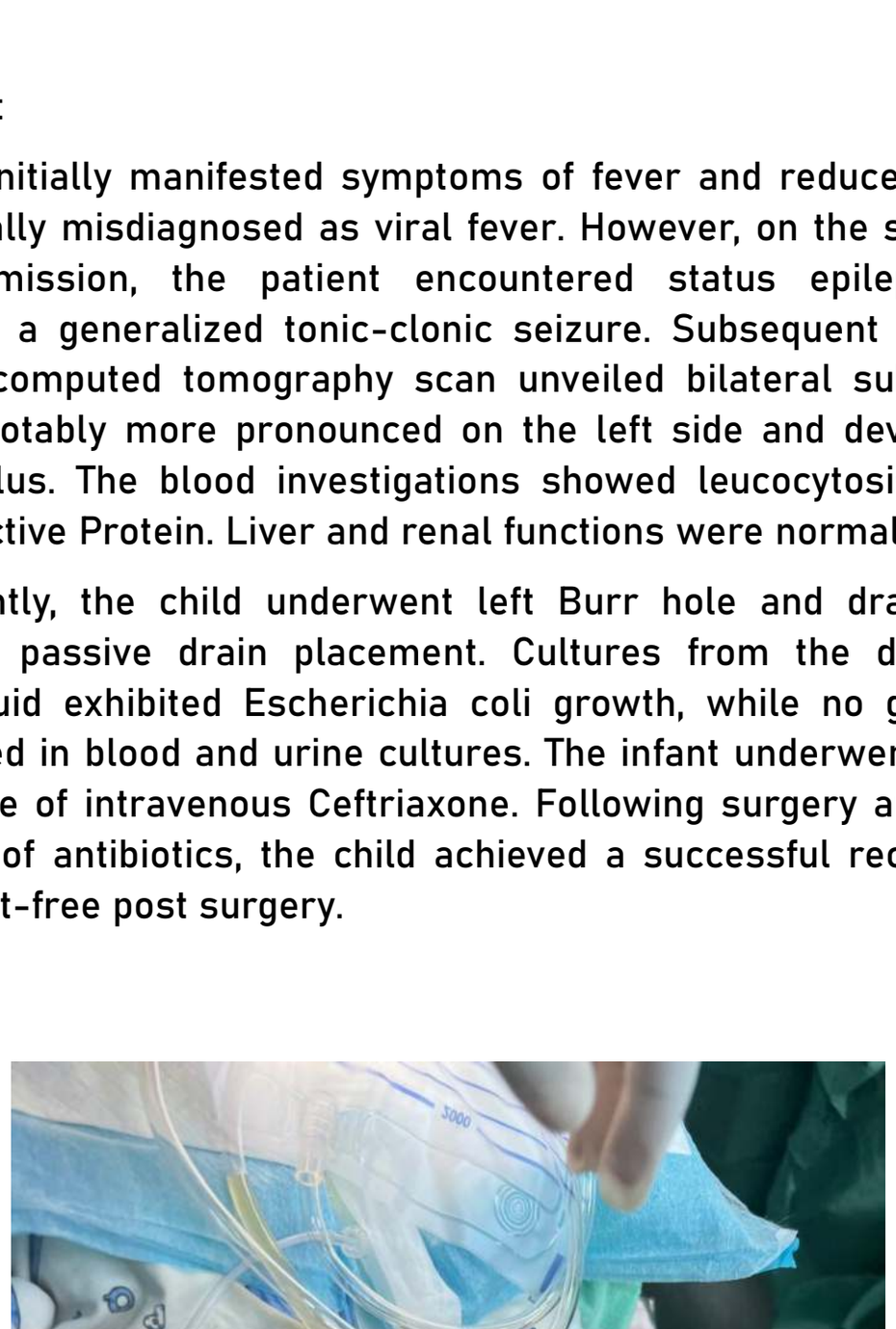
Consequently, the child underwent left Burr hole and drainage, featuring a passive drain placement. Cultures from the drained subdural fluid exhibited Escherichia coli growth, while no growth was detected in blood and urine cultures. The infant underwent a 6-week course of intravenous Ceftriaxone. Following surgery and the completion of antibiotics, the child achieved a successful recovery, remaining fit-free post surgery.

Discussion/Conclusion

Typically, subdural collections post-meningitis are associated with pathogens like streptococci and staphylococci. The presence of E. coli in this case is notable, as it underscores the potential for a wider range of bacterial etiologies than commonly expected. This deviation from the norm necessitates a high index of suspicion and consideration of atypical pathogens in similar clinical scenarios.

The initial misdiagnosis of the infant's condition as viral fever is a critical point of discussion. Fever and reduced oral intake are common in viral infections, but the progression to status epilepticus and subsequent generalized tonic-clonic seizure should alert clinicians to the possibility of a more severe underlying condition. This case exemplifies the need for continuous re-evaluation and a comprehensive diagnostic approach when initial treatments do not yield expected results.

In conclusion, this case of E. coli subdural collection post-meningitis in an infant underscores the need for vigilance, thorough investigation, and prompt intervention in managing post-meningitis complications. The successful outcome highlights the importance of a multidisciplinary approach, integrating clinical evaluation, imaging, surgical intervention, and targeted antibiotic therapy.



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