

Management of Neonatal Abdominal Immature Teratoma in a Resource-Limited South African Hospital: A Case Report

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<https://doi.org/10.33178/SMJ.2025.1.41>

Abstract

INTRODUCTION: Abdominal immature teratomas, rare congenital tumors, primarily originate from the gonads but can also present in extragonadal locations. Typically identified prenatally, these tumors carry a high risk of in-utero complications, often leading to fetal demise. This case report details the successful management of an abdominal immature teratoma in a neonate at a resource-limited hospital in South Africa, highlighting unique treatment adaptations for such complex cases in low-resource settings.

METHODS: A 28-day-old neonate with abdominal distention underwent initial imaging, revealing a heterogeneous mass in the left retroperitoneum. Following a multidisciplinary evaluation, the patient was initially managed with chemotherapy based on a differential diagnosis including neuroblastoma. However, a biopsy confirmed an immature teratoma, necessitating a shift in management to surgical resection. The neonate underwent a left nephrectomy and excision of the tumor, followed by postoperative intensive care to address complications from both chemotherapy and surgery.

RESULTS: The patient faced significant challenges, including nosocomial infections, neutropenic sepsis, and respiratory issues requiring prolonged ventilation. Despite these obstacles, the tumor was successfully excised, and postoperative complications were managed with targeted therapies, including antibiotic and antifungal treatments, blood transfusions, and hemodynamic support. The patient's condition stabilized postoperatively, and she is currently stable.

CONCLUSION: This case demonstrates the feasibility of managing complex congenital tumors like abdominal immature teratomas in resource-limited settings. Multidisciplinary collaboration and flexible treatment protocols were essential to achieving a positive outcome. The case offers valuable insights into adaptable management strategies that may be applied in similar cases within low-resource environments, expanding the understanding of congenital tumor care in underserved regions.

