

**Title: Management and Outcomes of Esophageal Atresia at a Kenyan Tertiary hospital: A 13-year Retrospective Cohort Study.**

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**Abstract:**

**Introduction:** Esophageal atresia (EA) is a congenital anomaly that causes a blind-ending esophagus with or without tracheoesophageal fistula (TEF). The global incidence ranges from 1:3500 to 1:4500 live births. In high-income countries, mortality rates have declined owing to advances in surgical expertise, neonatal care, and early diagnosis, although morbidity has increased. This improvement remains limited in low- and middle-income countries, where aspiration pneumonia and sepsis cause high mortality owing to delayed diagnosis, preoperative feeding, and poor referral systems. This study describes the management and outcomes of EA at Moi Teaching and Referral Hospital (MTRH) in Kenya.

**Method:** A 13-year retrospective cohort study was conducted by reviewing the medical records of patients managed for EA/TEF at MTRH from January 2010 to December 2022. These included demographic characteristics, Pré- and postnatal details, clinical interventions, intraoperative findings, and postoperative outcomes.

**Results:** Among 67 patients with oesophageal atresia, 64.2 % were male and 86.6 % were full-term. Cardiac anomalies occurred in 53.8 % of patients, most commonly patent ductus arteriosus, while non-cardiac anomalies were present in 19.4 %. The overall mortality was 44.8 %. Age at admission, birth weight, and surgical leaks didn't significantly affect the outcomes. Sepsis was strongly associated with mortality (33.3 % in deaths vs. 5.4 % in survivors;  $p < 0.001$ ). Patients who did not receive postoperative mechanical ventilation had higher adjusted odds of death (AOR 5.5, 95 % CI: 1.02–29.55,  $p = 0.048$ ).

**Conclusion:** Pneumonia and sepsis remain the major contributors to mortality in this population. Improved referral pathways to reduce diagnostic delays and tailored postoperative ventilation strategies may enhance survival outcomes in patients with EA/TEF.

**Biography:**

–Dr. Vivian Cheboiwo, MD, FCS (Pead Surg, ECSA) is a pediatric surgeon at Kenyatta University Teaching, Research and Referral Hospital in Kenya. Her clinical and academic interests focus on improving neonatal surgical outcomes, strengthening referral networks, and applying systems-based approaches to enhance care delivery for congenital anomalies. She has published in the field of neonatal surgery and continues to lead work aimed at optimizing early diagnosis, coordinated care, and survival for newborns with complex surgical conditions