

## **Typhoid Intestinal Perforation: Analysis of the Outcome of Surgical Treatment in Kano, Nigeria**

Lofty-John C. Anyanwu<sup>1</sup>, Abdurrahman A. Sheshe<sup>2</sup>, Aminu M. Mohammad<sup>1</sup>, Abubakar B. Muhammad<sup>2</sup>, Stephen K. Obaro<sup>3,4</sup>

<sup>1</sup>*Pediatric Surgery Unit, Department of Surgery, Aminu Kano Teaching Hospital and Bayero University Kano, Nigeria;* <sup>2</sup>*General Surgery Unit, Department of Surgery, Aminu Kano Teaching Hospital and Bayero University Kano, Nigeria;* <sup>3</sup>*Department of Pediatrics, Aminu Kano Teaching Hospital and Bayero University Kano, Nigeria;* <sup>4</sup>*Division of Pediatrics Infectious Disease University of Nebraska Medical Center, Omaha, USA*

**Background:** Intestinal perforation is a serious complication of typhoid fever with high case fatality rates in developing countries. This study aims to determine the factors associated with an adverse clinical outcome among patients managed for typhoid intestinal perforation (TIP) in our hospital.

**Methods:** We retrospectively reviewed the records of all patients presenting to our General surgery unit (adult surgical unit) with TIP between January 2012 and December 2015. The patients were categorized based on postoperative outcome status and patient related variables were compared and analysed for predictors of outcome, using the chi-square test. Significance was assigned to a p-value <0.05.

**Results:** There were 50 patients who had surgery for TIP during the study period, but only the records of 47 patients could be retrieved for analysis. Of these, 32 (68.1%) were males, and 15 (31.9%) females. The male/female ratio was 2.13:1. Their ages ranged from 13 years to 55 years with a median of 17 years. A single intestinal perforation was seen in 87.2% (41/47), while 12.8% (6/47) had two or more. The mortality rate was 8.5% (4/47). The occurrence of a post-operative faecal fistula, was significantly ( $p=0.016$ ) associated with a post-operative mortality. A peritoneal aspirate volume >1000mls was significantly associated with having a post-operative faecal fistula ( $p=0.011$ ), and post-operative mortality ( $p=0.002$ ). Number of intestinal perforations was not significantly associated with an adverse outcome ( $p>0.05$ ).

**Conclusion:** Post-operative faecal fistula adversely affected the outcome of the patients in our series. A proactive approach and supportive care is recommended in patients with TIP.