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## ORIGINAL ARTICLE

### Pattern of Abdominal Trauma and Treatment Outcome in a Nigerian Tertiary Hospital

*Traumatismes Abdominaux et Résultats du Traitement dans un Hôpital Tertiaire Nigérian*

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#### ABSTRACT

**BACKGROUND:** Trauma is the leading cause of mortality in young adults, often with the involvement of the abdomen.

**AIMS:** To report the pattern and treatment outcome of abdominal trauma in a Nigerian tertiary hospital.

**PATIENTS AND METHODS:** A retrospective observational study of abdominal trauma cases managed in the University of Port Harcourt Teaching Hospital Port Harcourt, Rivers State, Nigeria from April 2008 to March 2013. The variables studied included socio-demographic, mechanism and type of abdominal injury, initial pre-tertiary hospital care, haematocrit level at presentation, abdominal ultrasound scan, treatment options, operative findings and outcome. Statistical analyses of the data were performed using IBM SPSS Statistics for Windows, Version 25.0 Armonk, NY, USA.

**RESULTS:** A total of 63 patients with abdominal trauma were included with a mean age of  $28.1 \pm 7.0$  years (16 – 60 years), of which 55 cases (87.3%) were males. A mean injury to arrival time of  $33.75 \pm 53.1$  hours and a median revised trauma score of 12 (8–12) were recorded among the patients. Penetrating abdominal trauma was seen in 42 (66.7%) and operative treatment was performed on 43 (69.3%) patients. At laparotomy, hollow viscus injury was predominant – 32/43 (52.5%). A post-operative complication rate of 27.7% was recorded with 6(9.5%) mortality. The type of injury ( $B = -22.1$ ), initial pre-tertiary hospital care ( $B = -25.9$ ), RTS ( $B = -10.1$ ) and age ( $B = -0.367$ ) respectively all had a negative influence on mortality.

**CONCLUSION:** Hollow viscous injury is frequently detected at laparotomy for abdominal trauma and negatively influences mortality. The more frequent use of diagnostic peritoneal lavage to detect cases that need urgent surgical intervention is strongly advocated in this low-middle-income setting. **WAJM 2023; 40(3): 321–328.**

**Keywords:** Trauma; Abdomen; Pattern; Treatment; Outcome.

#### RÉSUMÉ

**CONTEXTE:** Les traumatismes sont la principale cause de mortalité chez les jeunes adultes, et ils touchent souvent l'abdomen.

**OBJECTIF:** Rapporter les caractéristiques et les résultats du traitement des traumatismes abdominaux dans un hôpital tertiaire Nigérian.

**PATIENTS ET MÉTHODES:** étude rétrospective d'observation des cas de traumatismes abdominaux pris en charge à l'hôpital universitaire de l'université de Port Harcourt, dans l'État de Rivers, au Nigeria, d'avril 2008 à mars 2013. Les variables étudiées comprenaient les données sociodémographiques, le mécanisme et le type de lésion abdominale, les soins hospitaliers prétertiaires initiaux, le taux d'hématocrite à la présentation, l'échographie abdominale, les options thérapeutiques, les résultats opératoires et l'issue. Les analyses statistiques des données ont été réalisées à l'aide de IBM SPSS Statistics for Windows, version 25.0 Armonk, NY, USA.

**RÉSULTATS:** Au total, 63 patients souffrant d'un traumatisme abdominal ont été inclus, avec un âge moyen de  $28,1 \pm 7,0$  ans (16 - 60 ans), dont 55 cas (87,3 %) étaient des hommes. Le délai moyen d'arrivée des blessés était de  $33,75 \pm 53,1$  heures et le score traumatique révisé médian était de 12 (8-12). Des traumatismes abdominaux pénétrants ont été observés chez 42 (66,7 %) et un traitement chirurgical a été effectué chez 43 (69,3 %) patients. Lors de la laparotomie, les lésions des viscères creux étaient prédominantes (32/43 (52,5 %)). Un taux de complications postopératoires de 27,7 % a été enregistré, avec une mortalité de 6 (9,5 %). Le type de lésion ( $B=-22,1$ ), les soins hospitaliers prétertiaires initiaux ( $B=-25,9$ ), le RTS ( $B=-10,1$ ) et l'âge ( $B=-0,367$ ) ont tous eu une influence négative sur la mortalité.

**CONCLUSION:** Les lésions du viscère creux sont fréquemment détectées lors d'une laparotomie pour un traumatisme abdominal et influencent négativement la mortalité. L'utilisation plus fréquente du lavage péritonéal diagnostique pour détecter les cas qui nécessitent une intervention chirurgicale urgente est fortement recommandée dans ce pays à revenu faible et moyen. **WAJM 2023; 40(3): 321–328.**

**Mots-clés:** Traumatisme; Abdomen; Schéma; Traitement; Résultat.

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