

The pattern of stab injuries in Port Harcourt

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Summary

All cases of stabbing reporting to the casualty Department of the University of Port Harcourt Teaching Hospital (UPTH) between 1st January 1997 and 31st December, 1997 were studied prospectively. Fifty new cases reported within the study period. Thirteen cases required admission while 37 cases were treated and discharged from the casualty department. The majority of injuries were minor and most victims were male and of these, students in the age group 21 - 30 years formed the greatest number. The most common weapon used was broken bottle and injuries involving multiple anatomic regions were in the majority. All cases requiring major surgical intervention reported within 6 hours of injury. No mortality was recorded.

Keywords: *Stab wounds, Port Harcourt broken bottles, Students.*

Résumé

Tous les cas de coups de poignard, rapportés au Services des Accidentés du centre Hospitalier Universitaire de Port Harcourt (UPTH) entre le 1^{er} Janvier 1997 et le 31 Decembre 1997, étaient étudiés en perspective. Cinquante nouveaux cas nécessitaient une admission tandis que trente - Sept. cas étaient légers et la plupart des victimes étaient des males - dont des étudiants, âgés de 21 à 30 ans, constituaient le plus grand nombre. L'arme la plus couramment utilisée était la bouteille brisée et les blessures nécessitant de multiples régions anatomiques étaient dans la majorité des cas. Tous les cas nécessitant une intervention chirurgicale majeure rapportés à moins de 6 heures de l'accident. Aucune mortalité n'était enregistrée.

Subjects and methods

All patients reporting to the Casualty Department with stab injuries were studied prospectively using a standard proforma (Table 1). The period of study was from 1st January 1997 to 31st December 1997. No cases reported to the casualty for a period of three months (1st September 1997 to 8th January 1998) when the Casualty Department was closed as a result of industrial (strike) action by junior doctors of the UPTH. All data were obtained directly from the patients using the standard proforma (Table 1). In situations where patients were admitted to the wards or had surgical procedures carried out in theatre the relevant information/findings were obtained from the ward/theatre records and patients' case notes.

Results

Fifty stab wound cases were recorded over the study period and these form the basis of this report. The majority of victims (22 cases i.e. 44%) fell into the age range 21 - 30 years (Fig. 1) followed by the age range 11 - 20 years with 16 cases (32%). Males were 42 in number as opposed to 8 females. There were 15 student victims, followed by 8 victims who were petty traders, 4 unemployed and 3 businessmen. Two victims each were recorded as car mechanic, carpenter and motorcyclist while there was one each of welder, barber, housewife, bus conductor, plumber, tailor and taxi driver.

A variety of weapons was used. The most commonly used weapon was broken bottle (24), others include knife (9) matchet (4), combined knife and broken bottle (2) and dagger (3). Other weapons used were firewood, broken louvre glass, axe and broken rinking glass. Twenty two attacks took place at night, 15 in the evening and 11 in the morning. The most frequent day of presentation was Thursday (11), followed by Wednesday/Sunday (9),

Table 1 Standard Proforma

Name
Address
Age
Sex
Occupation
Place of attack
Assailant
Weapon
Alcohol consumption
Day of Week
Time of attack
Delay of presentation to A & E Department (Casualty)
Site of injury
Investigations
Intervention performed
Outcome
Admission to hospital
Duration of stay, investigations and subsequent intervention

Table 2 Description of injury, intervention and outcome by anatomical region

Region of injury	Intervention	Outcome
Gastrointestinal		
Small bowled perforation (2 cases)	Exploratory Laparotomy Suturing of perforations	Satisfactory
Vascular		
Laceration of radial artery (One case)	Wound exploration Ligation of radial artery	Satisfactory
Thoracic		
Pneumothorax (3 cases)	Closed tube thoracostomy	Satisfactory
Haemopneumothorax (one case)	Closed tube thoracostomy	Satisfactory
Anterior chest wall laceration (two cases)	Wound exploration and primary suturing	Satisfactory
Limbs		
Compound fracture radius /ulna (One case)	Wound toileting, suturing and POP application	Satisfactory
Multiple Sites		
Neck, Upper limb, lower limb trunk and back lacerations (37 cases)	Suturing	Satisfactory
Others		
Anterior abdominal wall penetrating Injury without visceral damage (3 cases)	Exploration of anterior abdominal wall & primary closure	Satisfactory

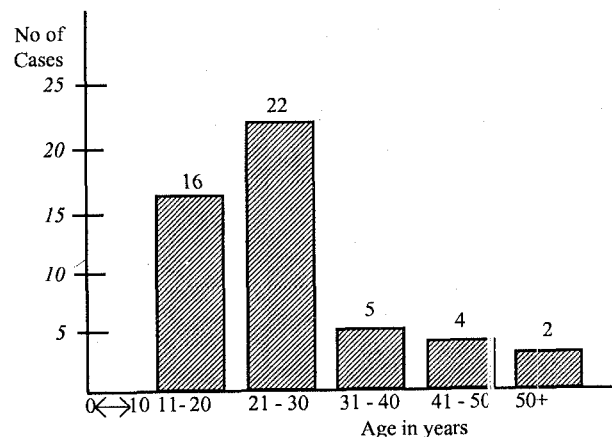


Fig. 1 Age of Presentation

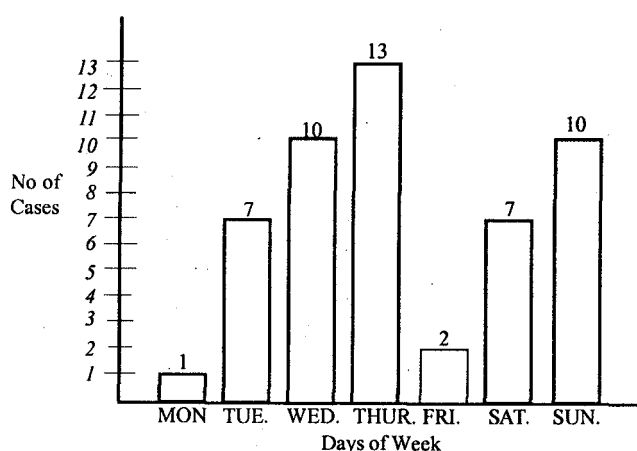


Fig. 2 Day of presentation

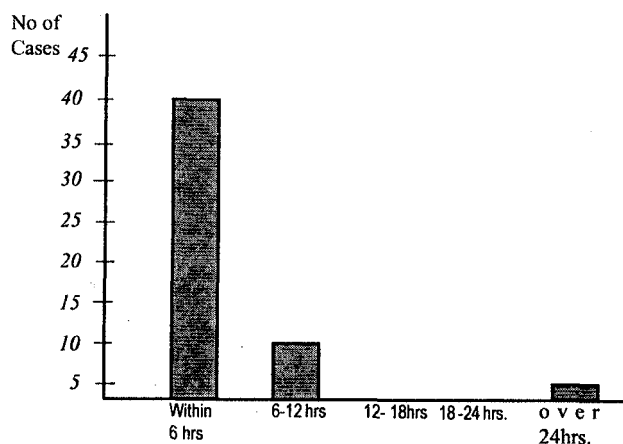


Fig. 3 Injury time before presentation

Tuesday (7) (Fig. 2). The majority of patients presented to the casualty within 6 hours of injury (39 cases), 11 patients reported after 6 hours but before 12 hours (Fig. 3). There are various reasons for the delay in presentation namely; transport difficulty, unavailability of helpers, prior visit to patient medicine store and prior reporting to the police station. Almost half of the patients (24) presented to the casualty in the night.

Thirteen patients required admission; the remainder (37) were treated and discharged from the casualty department. Six injuries involved the abdomen and of these 2 required exploratory laparotomy (Table 2). A third case which was earmarked for laparotomy eventually signed against medical advice and left. Of those admitted the average duration of stay in hospital was 10.6 days. There were 6 chest injuries out of which 4 had closed tube thoracostomy. No self inflicted stab wounds were encountered in this study but there was one instance in which a husband stabbed the wife.

Four victims were found to have consumed alcohol at the time of presentation to the casualty department. This assessment was made purely on the fact that the victims smelt of alcohol.

Discussion

There has been no previous report about stab injuries from this region of Nigeria. In the University of Port Harcourt Teaching Hospital the impression has been that the incidence of stab injuries is on the increase but no details or documentation of facts can be given about this suspicion.

Stab injuries tend to present in a dramatic way and the layman associates them with serious and significant consequences.^{1, 4} In this study the majority of injuries were minor requiring wound toileting, suturing and dressing. Furthermore, the greater number

of patients did not require admission - only 13 out of 50 patients (26%) were admitted. In their study in Cardiff Frigelstone et al found 48% of their patients required admission.¹

The male/female ratio was 5.3:1. This is not surprising as males are more likely to be involved in activities that could result in such injuries. Furthermore as family breadwinners, they are also more exposed.

The study found stab injuries to be largely a problem of the young. The 21 - 30 year age group was most commonly involved (22 cases), followed by the 11 - 20 years age group (16 cases). This is an interesting observation because these constitute the age group in which students are to be found. Students turned out to be the most affected victims in this study. Cult activities are predominantly found among student groups and the common scenario is when rival groups attack each other inflicting varieties of injuries on themselves some of which prove fatal.

There was one instance in which a 24-year-old housewife was stabbed by the husband. In a study reported from Papua New Guinea three such stab injuries were inflicted by husbands on their wives.² In the Cardiff study wives assaulted their husbands in 13% of cases. None of this latter situation was encountered in the present study.

It was obvious in this study that any anatomic region could be affected. The majority of victims had injuries involving multiple anatomic regions (13 cases). The head/neck and upper limbs were next the most common regions (8 cases each). This latter observation may be explained by the fact that in order to ward off an attack to the exposed head/neck regions, the upper limbs are used as means of defence.

Abdominal and chest stab wounds were six each in number. Two of the abdominal injuries required exploratory laparotomy because they were the penetrating in type. Although described and practised by some workers a "stabogram" (Sinogram)⁵ was not used as a diagnostic tool in this study to establish the extent of penetrating injuries.

It was easier and less time consuming to do local wound exploration under aseptic conditions or proceed to exploratory laparotomy. This is because the present set up of the radiological services of the hospital makes it very difficult and extremely time consuming to organise any such study involving the use of contrast media. Additionally, the contrast medium may not even be available and patients relations may be required to purchase such from outside of the hospital. The two cases requiring exploratory laparotomy were found to have sustained perforations of the small bowel. These were closed in two layers (Table 2). The third case earmarked for laparotomy however signed against medical advice and left. The intra abdominal injury sustained by this patient could therefore not be confirmed. The rest of the abdominal injuries (3 cases) involved only the anterior abdominal wall without intraperitoneal penetration. Of the chest injuries the greater number had closed tube thoracostomy. The majority of victims (almost half) presented at night and this was the experience in other studies.¹ The reason for this is not immediately apparent but it would appear that people are more likely to hide under cover of darkness to commit such crimes. Moreover club activities are also predominant at night and most times the club users get drunk.

Most patients presented to the casualty within 6 hours of injury and invariably these constituted the group with more serious injuries requiring admission or some kind of surgical intervention. Those reporting late to hospital gave reasons for their late presentation namely: prior visit to a patent medicine store, transport difficulty, unavailability of a helper, or prior visit to the police station. It is common practice for patients to go to patent medicine stores for self medication in this environment. All these patients (who presented late) turned out to have minor injuries requiring outpatient treatment in the casualty department.

A wide variety of weapons were used but the most common encountered in this study was broken bottle followed by knives. Other weapons known to have been used to inflict stab injuries, but not encountered in this study, includes spears, arrows and bars.⁵

The reason for broken bottle turning out to be the most common weapon used is not immediately obvious. However, empty, soft drink as well as beer bottles are easy to come by and many a time rival student groups are seen armed with empty bottles ready to break them and attack each other. It is also possible that some of the broken bottles were obtained directly from bottled drinks recently consumed.

Contrary to popular belief and records that such injuries present commonly at the weekend¹ our study showed that most patients presented on a Thursday. In fact Friday recorded the next lowest day of presentation. The reason for this is not clear but our speculation is that in this environment there is usually mass movement of people to the villages from Port Harcourt for burials, social activities and gatherings, etc. at the weekend. The potential for assault and resultant stab injuries is therefore reduced at such times.

Alcohol has been found to be one of the factors associated with an increased incidence of stab injuries.^{1,2} It was not surprising therefore that four victims in this study were found to have consumed alcohol at the time of presentation.

In conclusion injuries from stabbing are fairly common and in this study the majority were minor. Most of the victims were males and of these, students in the age group 21 - 30 years were in the

majority. There was only one instance in which a husband stabbed the wife, and no case of self mutilation was encountered. The most commonly used weapon was broken bottle and all cases requiring major surgical intervention reported within 6 hours of injury.

Acknowledgement

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References

1. Frigelstone L J, Johnson R C, Wheeler M H and Salaman J R. An audit of stab wounds in Cardiff. *J. R. Coll. Surg. Edinb.* 1995; 40: 167-170.
2. Clark M P A. Wounds of Wewak Papua, New Guinea. *R. Coll. Surg. Edinb.* 1998; 43: 174-177.
3. Lambrianides, A. Rosin R. Penetrating injuries of the chest and abdomen. *Injury* 1984; 15: 300-3.
4. Walton C, Blaisdell F, Jordan R, Bodai B. The injury potential and lethality of stab wounds: a Folsom Prison Study. *J. Trauma* 1989; 29: 99 - 101.
5. Badoe E A, Archampong E Q and Jaja M O A. Principles and practice of surgery including Pathology in the tropics 2nd edn. Tema: Ghana Publishing Corporation 1994; 134 - 144.