Assaults in south east London

M A Hocking MB FRCS *Department of Accident & Emergency, Lewisham Hospital, London SE13 6LH*

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Summary

A survey was performed of 425 consecutive patients attending Lewisham Hospital as a result of deliberate physical violence. Eighty-two per cent attended 'out of hours', and in at least 50% alcohol was a contributing factor. Less than half the incidents were reported to the police. Fifteen per cent of the attacks were due to knives and accounted for 47% of the admissions and 90% of the serious injuries. The results support the view that it is becoming common for youths to be armed. Assault victims, particularly those with knife wounds place a considerable burden on hospital resources. Accident and Emergency departments are ideal places to monitor the epidemiology of assaults.

Introduction

Violence is always in the news. Although the victims of assaults attend their local Accident and Emergency (A & E) departments there have been virtually no reports about these patients, except for papers on specific types of injuries sustained, e.g. stab wounds in Glasgow[1] and in London[2] and gunshot wounds in Dublin[3]. Some workers in the USA have begun to address the problem[4,5] but work is only just starting in the UK[6,7].

Lewisham Hospital is a teaching hospital serving the inner London borough of Lewisham, (population 186 000). The A & E department saw 38 530 new patients in 1986. A survey of 425 consecutive assault victims was carried out in late 1986 and early 1987. For this purpose, any patient sustaining injuries as a result of deliberate physical violence (whether giving or receiving it), was classified as an 'assault'.

Method

Between 10 October 1986 and 12 January 1987 inclusive, all patients over the age of 12 years who attended the A & E department as a result of an assault were studied. The casualty officers filled in a simple form for each patient giving details of the incident. The receptionists also kept aside the cards of all those patients they knew to be assaults. This enabled those who did not wait to be seen to be included, and also those for whom the form had not been completed for some reason. The forms were all checked with the cards by the author and further details of diagnosis, management and follow-up were collected.

Results

During the period of the survey, 425 assault victims attended the A & E department. The amount of information obtained for each patient varied, depending on how forthcoming they were, and on whether the form was completed at the time of attendance or had to be filled in retrospectively. In these results, '*n*' denotes the number of patients if less than 425.

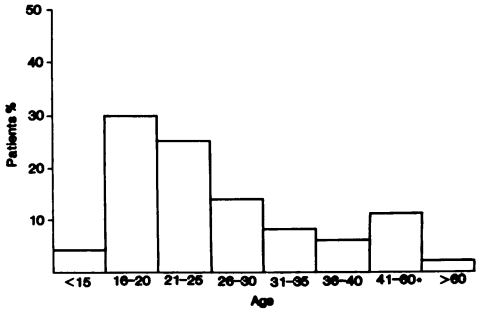

*Figure 1. Age distribution of assault victims. *This column covers a 20 year period*

Sex

Three hundred and twenty-six (77%) of the patients were male.

Age

The age distribution is shown in Figure 1. Two hundred and forty-six (55%) patients were aged between 16 and 26.

Ethnic origin (*n*=304)

Two hundred and thirty-one (76%) patients were Caucasian, 64 (21%) Afro-Caribbean and 9 (3%) Indian or Oriental.

Occupation (*n*=263)

Sixty-nine patients (27%) were unemployed. Seven (3%) were health service workers.

Type of attack

This is shown in Table 1. Many patients underwent more than one type of assault.

Table 1. Type of attack

	No.	*%* ■
Punched with fists	194	46
Kicked	74	17
Miscellaneous weapons	72	17
Knived	66	15
Miscellaneous (no weapon)	38	9
Bottled●	37	9
Manhandled	23	5
Unknown	23	5
Human bite	9	2

●Bottled=attack with broken glass.
■ Many patients sustained more than one type of assault; hence the figures total more than 100%.

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Table 2. Place of occurrence of incident

Type of assault	*Street*	*Pub/Club*	*Home*	*Other public place*	*Elsewhere*	*Place unknown*	*Total*
Sharp weapons	37	28	11	3	10	14	103
Other weapons	31	7	10	2	12	10	72
Other assaults	121	27	84	18	50	61	361
Total number of incidents	147	53	86	19	57	63	425

NB, Many patients were attacked in more than one way

Place of assault (n=362)
Table 2 shows the location of incidents. Six had occurred in hospital or in a Health Centre (but only one in the A & E department).

Weapons
Weapons of some sort were used in 68/147 of the street assaults, where objects such as iron bars and baseball bats were commonest; used in 21% of attacks, and followed closely by knives (18%). In the home 21/86 assaults involved weapons (miscellaneous objects 12%; knives 8%). In public houses and clubs, two thirds of the incidents (35/53) used weapons (knives 28%; glass 25%; miscellaneous 13%). Forty per cent of all stabbings/slashings took place on the street, and 23% in pubs/clubs.

The assailant (n=363)
Two hundred patients (55%) claimed not to know their assailant. In 108 (30%) incidents the attacker was known but was unrelated, and in 55 (15%) family (including unmarried consorts) were involved. The principal aggressor was male in 334/356 (94%) incidents. Only one assailant was involved in 212/348 (61%) cases. Gang attacks (four or more people) occurred on 50 (14%) occasions.

Previous incidents (n=309)
Eighty-seven patients (28%) had been assaulted previously. Six patients attended more than once during the course of the survey.

Police involvement (n=333)
In only 153 (46%) instances had the police been notified, or been present at the time of the incident. The police themselves were unfortunately unable to provide their own figures for the survey period. Victims were more likely to involve the police if they did not know the perpetrator, i.e. 104/180 (58%) patients. If they knew their assailant or he was related only one third were reported to the police. (34/102 and 14/44 respectively).

Alcohol (n=348)
In view of the concern expressed by the A & E staff about patients' reactions if measurement of breath alcohol were done routinely on assault victims it was only possible to obtain a subjective assessment on the part of the casualty officer. It was recorded if the patient admitted to having been drinking, or whether the doctor felt that he or she was under the influence of alcohol on clinical grounds. One hundred and seventy-five (50%) patients had been drinking at the time of or shortly before the assault.

Day and time of attendance
The study period included Christmas and New Year, so on only four days between 24 December and 2 January did the A & E department have all back-up services available. Only 77/425 (18%) patients attended during normal working hours, and even less (6/73 or 8%) over the Christmas/New Year holiday. New Year's Day was the busiest day of the whole survey with 19 assaults. Sixteen of them were before 0900 h and accounted for exactly one third of attendances over that period. Excluding the holiday period, Saturday had the highest attendance with an average of 5.5 patients.

Injuries sustained
Many patients sustained several injuries but only three had multiple injuries. The commonest injuries are shown in Table 3 and it can be seen that open wounds were the most numerous, followed by contusions. Small numbers of other injuries occurred; i.e. vascular (2), nerve (2), tendon (2), dislocation (1) and there were five patients in whom no abnormality was found. Table 3 also shows the site of the injuries, with the head and face, followed by the upper limb, being most often involved. In general the injuries were not severe; only 11 (1.9%) scoring 9 or more on the injury severity score. Ten of these were due to knives. The three patients with the most severe injuries all had stab wounds to the chest in addition to serious damage elsewhere including eye trauma in two and complete transection of the ulnar nerve at the elbow in one.

Patients admitted
In 51 cases (12%) admission was advised direct from A & E and in 2 cases after ENT clinic visits. Eight patients refused to come in. Due to the loss of some inpatient notes details were only available for

Table 3. Type of injury and anatomical site

Anatomical site	*Open wound*	*Abrasion*	*Contusion*	*Fracture*	*Sprain/ strain*	*Concussion*	*Visceral injury*	*Total*
Head and neck	166	34	129	35	3	27	0	394
Trunk	24	8	50	1	1	0	9	93
Upper limb	54	16	35	30	9	0	0	144
Lower limb	15	6	13	1	2	0	0	37
Total	259	64	227	67	15	27	9	668

Table 4. Treatment in the A & E department

	No. of patients	*%*
No treatment necessary	84	20
Wound toilet +/− steristrips	45	11
Wound toilet and sutures	157	37
Bandage/strapping/sling	51	12
Manipulation	4	1
Application of Plaster of Paris	10	2
Intravenous infusion	13	3
Neuro-observations	15	4
Chest drain	4	1
Eye irrigation	5	1
Drainage of abcess	5	1
Prescription:	165	39
Tetanus toxoid	74	
Analgesics	67	
Antibiotics	36	
Eye drops/ointment	10	
Other	10	
Miscellaneous	11	3

NB Many patients needed more than one type of treatment.

41 admissions. The length of stay varied from one day to 16 days with an average of 4.25 days. Four patients spent time in the intensive care unit; one of them staying for 4 days. Thirteen patients were taken to theatre; three of them twice. Twenty-four (47%) of the patients admitted had been attacked with knives.

Treatment in the A & E department

Table 4 gives an outline of the management given.

Disposal

Table 5 shows the disposal of the patients from the A & E department. Seventeen patients did not wait to be seen and another six refused treatment. Although 81 patients were given outpatient or physiotherapy appointments, 29 (36%) did not bother to turn up. Each patient who did come made an average of two visits each, but seven defaulted on their last appointment.

Eighteen inpatients were also given clinic appointments. Four defaulted and the rest had an average of 2.14 visits. Thus 33/99 patients decided not to avail themselves of outpatient follow-up.

Only 131 patients had no follow-up arranged. This leaves 69% who were thought to need review either in hospital or by their GP.

Table 5. Disposal from the A & E department

Destination	*No. of patients*	*%*
Hospital ward	51	12
Outpatient clinic:	70	16
Fracture clinic	25	
ENT clinic	18	
A & E clinic	17	
Dental clinic	10	
Physiotherapy department	11	3
Own general practitioner/ dentist	162	38
No follow-up needed	108	25
Did not wait or refused treatment	23	6

Discussion

The foregoing results give the picture of the typical assault victim as being a Caucasian male between the ages of 15 and 30. He has been punched by an unknown man, while on the street or in a public house and is likely to have been drinking. He will almost certainly attend the A & E department at night or during the weekend. Probably he did not know his attacker and is therefore slightly more likely than not to report the incident to the police. He has a greater than one in four chance of having been assaulted previously.

This survey was not designed to elucidate the reasons for the assaults. Some were certainly muggings of innocent victims. However, there are undoubtedly youths who roam the streets looking for 'aggro'. They seem to regard their injuries in the same light as a rugby player perceives his bruises as an inevitable accompaniment of his sport.

One disturbing trend is in the use of knives. Until fairly recently their use was not common outside Glasgow, but it is now increasing throughout the large cities and particularly in parts of London[2]. Even so, Swann *et al.*[1] estimated that stabbings accounted for only 3% of all the assaults seen at Glasgow Royal Infirmary in 1978 and 1983. However, 15% of the assaults at Lewisham were stabbings or slashings. Fights in the home would be thought most likely to result in knife injuries, due to their availability. However the results do not bear this out and suggest that there are significant numbers of people who carry weapons, and knives in particular, on the streets and in public houses.

It is frequently suggested that the official figures for crimes of violence are too low because many incidents do not get reported to the authorities. From the results of this survey, even if one allows for some of the patients contacting the police after leaving the department, the same conclusion is reached. A similar picture is obtained in Glasgow[1] and Bristol[7] and presumably this is typical of other large towns.

Alcohol was implicated in half of the victims, as judged clinically. If breath or blood levels had been measured it is likely that the figure would have been much higher (Gosnold J. Alcohol and Violence; Casualty Surgeons Association Scientific Meeting, Jersey, 1987). Seventy-seven per cent of patients with stab wounds admitted to St Charles' Hospital were drunk[2]; 63% of assault victims attending San Francisco General Hospital Medical Center had been drinking[5]; and 70% of those going to Bangour Hospital had alcohol in their breath on testing with an Alcometer[8].

The majority of injuries sustained were minor and were treated in the A & E department. The common sites of injury were as one would expect; the head, face, upper limb and trunk being most vulnerable. Knives were responsible for the most serious injuries.

Richmond[6] has tried to estimate the cost of treating assault victims. On the basis of this survey, and taking £137 as the average cost per inpatient day, assault patients who are admitted cost the hospital £92 564 per annum. In addition the fact that over a third of patients defaulted from outpatient appointments does not assist in the efficient use of resources.

Assault victims form a significant part of the workload of an inner city A & E department. Despite the public's perception that such departments deal with many road traffic accidents, over the study

period they were outnumbered 3.73 to 1 by assaults. These people and their friends can cause disproportionate disruption to the work of the department and may upset and frighten other patients. The vast majority attend outside normal hospital hours. Although such eventualities are to a certain extent anticipated and hence provided for, the back-up facilities are, of necessity, less. Only one incident occurred within the department but the staff are constantly aware of the potential for violence and frequently have to defuse difficult situations.

A & E departments may not be able to prevent violence in the community (although the setting up of counselling services has been advocated[5,6,9]), but they can collect the data for their area. Other agencies may then be able to use available resources more efficiently to tackle the problem.

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