The results of examinations of serious sexual offences: a review

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Keywords: rape; buggery; child sexual abuse

Members of the Association of Police Surgeons were asked to fill in a questionnaire covering the circumstances and findings in consecutive cases of serious assault that they were called on by the police to examine. Nineteen police surgeons responded. The questionnaire asked for 73 different items of information, allowing for the analysis of many different aspects of these cases. They were reported by police surgeons throughout the UK during 1989.

The results are published in full in *Police Surgeon* Number 38 January 1991. Many aspects of this research may be of interest to a more general readership than police surgeons alone. These findings are summarized here.

The study has served as a pilot and further work is now under way to consider aspects not fully covered, and to try to clarify many areas where a greater number of cases is required.

Rape

One hundred and fifty-three cases of rape and attempted rape were reported. Of these 14 (9%) were attempted rape and 13 (8.5%) involved child victims (having more in common with cases of child sexual abuse, these 13 are considered with them). In 23 cases (15%) the allegation was false, withdrawn or considered doubtful. This leaves 103 victims for study.

The overall profile of these cases was of a victim between the ages of 16 and 19 (35%) who was single (80%). The offence occurred between 20.00 h and 04.00 h (64%) and occurred on a Sunday (28%) in the victim's or offender's home (47%). The offender was known by the victim in nearly 60% of cases and in 85% of cases there was only one offender.

Sixty-two per cent were examined in a purpose-built examination suite and 64% were examined within 24 h of the offence. The examinations were carried out at all times of day and night. The mean length of the examination was 97 min. Seventeen per cent were virgins before the rape.

In 71% of cases no contraception was used, and with the present concern over AIDS, a condom was used in only 5%.

Fifty-two per cent of the victims had no signs of alcoholic intoxication, 23% were mildly intoxicated, 16% moderately and 9% severely. These figures agree closely with the measured blood alcohols of an earlier series of rape victims[1], and show that the clinical judgement of experienced examiners corresponds closely with the laboratory findings.

A weapon was carried by the offender in 14% of cases and was used to cause injury in half of these.

Seventy-four per cent of the victims were injured, 26% had no injuries. The number injured is higher than figures from series in the USA[2-8], Denmark[9] and Nigeria[10].

Buggery and anal penetration

There were details of 86 victims of alleged anal penetration. Eleven cases (13%) were false, withdrawn or considered doubtful. Of the remaining 75, 51 had suffered buggery, 20 non-penile penetration and four attempted buggery.

Twenty-six of the buggery victims were male and 25 female. Of the 30 adult victims of buggery half (15) were male. Of the 15 adult females, seven had suffered buggery alone and eight rape and buggery. A similar pattern was seen with child victims. Of the 21 child victims, 11 were boys. Of the 10 girls, four had suffered buggery alone and six had suffered vaginal intercourse as well.

The age range of victims was from months to 60 years, the peak incidence being between 15 and 19 years (29%). Seventy-eight per cent occurred in the victim or offender's home. The offender was known by the victim in 79% of cases and in 71% of cases there was only one offender.

Ninety per cent of victims were examined in either a purpose-built victim examination suite, a surgery or hospital. Ten (20%) of the buggery victims were seen in the first 24 h, and less than half (47%) within 10 days. The mean length of the examination was one hour.

Seventy-one per cent of the victims had taken no alcohol. Two of those severely intoxicated were under 16 and one of these was aged 7 years. Even with child victims, alcohol may be a factor and should not be forgotten. Twenty-three (45%) of the buggery victims were uninjured. The commonest site of injury was the anus with a third of victims having anal injury. The anal injuries seen were abrasion (4%), laceration (2%), bruising (4%), redness (8%), scarring (14%) and oedema (2%).

The findings with regard to anal tone in buggery confirmed the accepted signs of increased tone after an acute episode of buggery in a person not accustomed to it and reduced tone in those habituated to buggery.

The following findings were seen on examining the anal skin in cases of buggery: injury 31%, abnormal anal folds 10%, anal fissure 16%, skin tags 2%, prominent veins 8%, thrombosed external pile 4%, threadworms 2%.

There is a significant incidence of injury, abnormal anal folds and fissures, and this confirms that these are valid signs of buggery. Prominent veins are present in 8% of cases and the other abnormalities in less. Prominent veins may be a sign of buggery but the numbers here and lack of control group, do not allow any firm conclusions. Further studies with a large number of cases is required.

Reflex anal dilatation

Initially a crude overview of the incidence of RAD is shown below. This shows the incidence of various

0141-0768/92
080467-02/$02.00/0
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degrees of a positive test, and is divided to show the incidence in those who as far as it is possible to tell, have suffered anal penetration, and those, who as far as it is possible to tell, have not. No account is taken of the interval between the offence and the examination which is in many cases prolonged.

	Anal penetration	*No anal penetration*
Transient (wink)	4 (5.9%)	10 (3.6%)
External sphincter alone	3 (4.4%)	11 (3.9%)
External & internal sphincter react	4 (5.9%)	3 (1.1%)

This gives an uncritical view of the incidence of this sign. It is not known for how long after anal penetration the sign remains positive, assuming that it is a sign of anal penetration. If it is positive months or years after the event it seems unlikely that it is related to that event. Cases which were examined within 10 days of the alleged offence were compared with those examined 10 days after an event other than anal penetration, to act as a control group[11]. The incidence of any degree of reflex anal dilatation was 4.5% in those who had suffered anal penetration and 6.9% in the control group. It appears that reflex anal dilatation, if any degree is taken as positive, is not a sign of anal penetration. The figures suggest that in those cases where both the external and internal anal sphincters open, there may be a causal relationship, and this is the subject of further study.

Child sexual abuse

One hundred and ninety-four victims of child sexual abuse were examined, 156 (80%) were female. The age range was from under one year to over 16 years, the mean age being 7.8 years. These findings are similar to those elsewhere[11-13].

The acts committed against these children were:

Vaginal touching	23%
Vaginal penetration	32%
Anal touching	16%
Anal penetration	21%
Penile touching	3%
Not anogenital contact	30%

The victim-offender relationships were comparable to those shown in other studies, only 7% of victims being abused by a stranger.

The number of people present at these examinations is a cause of concern and the minimum possible is the most desirable. However, training needs of the various agencies involved and the individual circumstances may make the ideal difficult to achieve.

In this series the number of people present with the examining doctor and the victim were as follows. One person 34%, two people 54%, three people 22%, four people 5% and five people 2%. In cases with five other people present this means that seven people in all were present in the examination room. Those most commonly present were the child's mother and a police officer, usually a woman.

Of those children where the time of the offence was known (58%), 48% were examined within 10 days of that offence. With young children the time of an offence may be very vague or unobtainable. The time of the examination reflects the fact that in most cases there was no urgency and 73% were examined between 09.00 h and 18.00 h. The mean length of the examination was 34 min.

The incidence of injury was low with 72% having no injury, very similar to the US with 76%[12].

The size of the hymenal opening has been the subject of considerable debate. In this series the size of the hymenal opening in children with an intact hymen was 0-10 mm in diameter, while those with a non intact hymen varied from 5 to 35 mm. There is therefore a significant overlap between the two groups.

This survey has allowed the study of a wide range of findings in cases of serious sexual assault. They are of interest and significance not only to clinicians, but also to all those who are involved in planning and organizing these investigations, and the employing authorities of those carrying out the examinations. It is hoped that a new survey which is in progress will analyse a larger number of cases and allow us to gain more knowledge in what is a difficult and stressful field of medical practice.

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(Accepted 25 November 1991)