

COITAL INJURIES OF THE VAGINA

N. SUBRAMANIAM
R. YOGARAJ

SUMMARY

This article is an analysis of seven patients who presented to the Gynaecology Unit, General Hospital, Ipoh, during the period 1984–1985 with vaginal injury sustained during normal coitus.

Four patients were between 22–34 years of age. The remaining three were in the 51–64 year group; all the three had undergone previous gynaecological surgery.

History of coitus as the precipitating cause was elicited in all our patients and having reached a diagnosis, subsequent management was fairly straightforward. Two patients presented with clinical features of haemorrhagic shock and required initial resuscitation with blood transfusion. Five patients required definitive surgical repair of the vaginal injuries, and in only two

patients was conservative management possible. Both these patients were in the menopausal age group.

PATIENTS AND METHODS

During the two-year period from 1984–1985, there were five admissions to the Gynaecology Ward at the General Hospital, Ipoh, Perak, with post-coital vaginal injury. All these patients were admitted from the Casualty Department. The remaining two patients were seen at the Specialist Clinic and managed as outpatients.

The racial distribution suggests no particular ethnic preponderance. In our series, there were two Malays, two Chinese and three Indian patients. Age distribution ranged from 22–64 years. Four patients were in the 22–34 year age group. The remaining three patients were menopausal, and their ages ranged from 51–64 years.

Though normal coitus was the primary cause of vaginal trauma in all our patients, associated factors were identified in five of our seven patients (Table I): one patient, following a normal vaginal delivery noted vaginal bleeding since resuming intercourse in the late puerperium; one patient had a vaginal septum in the upper third of the vagina; three patients (all in the older age group) were post-menopausal and had undergone previous gynaecological surgery; one patient had a Manchester Repair 20 years previously; one patient had a vaginal hysterectomy with repair one-and-

N. Subramaniam, MBBS (Mysore), MRCOG (Lond)
Consultant Obstetrician & Gynaecologist
General Hospital
30990 Ipoh, Perak

Yogaraj Ramanathan, MBBS (Mysore)
Registrar
Obstetrics & Gynaecology Unit
General Hospital
30990 Ipoh, Perak

TABLE I
SITE OF LACERATION WITH RELATION TO AGE, RACE, POSSIBLE
PREDISPOSING FACTORS AND PARITY

Age (yrs)	Race	Associated factors	Site of laceration	Parity
22	Malay	First intercourse	Posterior fornix	0
22	Indian	Vaginal septum, first intercourse	Upper third (RT) postero lateral vaginal wall	0
23	Chinese	First intercourse	Lower third (RT) postero lateral vaginal wall	0
34	Malay	Prolonged abstinence, late puerperium	Posterior fornix (two lacerations)	3
51	Indian	Post total abdominal hysterectomy	Upper third (RT) vaginal wall	3
62	Indian	Post vag. hysterectomy prolonged abstinence	Upper third (RT) postero lateral vaginal wall	6
64	Chinese	Post Manchester operation post menopausal	Upper third (RT) vaginal wall	4

a-half years previously; one patient had a total abd. hysterectomy 16 years previously.

Clinical presentation

All seven patients presented with vaginal bleeding of varying degree and most of them had felt pain during intercourse and subsequent to it. The duration of bleeding varied between three hours to a few days. One patient in the post menopausal age group who was managed conservatively had been bleeding for two months!

Two patients presented with profuse bleeding and clinical features of hypovolaemic shock, and had to be resuscitated with plasma expanders and blood transfusion before definitive surgery could be performed.

In our series, only one patient had multiple (two) lacerations. The remaining six showed only a single laceration (Table I). Two patients had lacerations involving the posterior fornix. In one patient this took the form of a simple transverse laceration and in the other, there were two small lacerations.

Three patients had vaginal wall lacerations which were actively bleeding and all of them had these lacerations situated in the right post-erolateral aspect of the vagina. In one of them, it was situated in the lower third, whereas in the other two the lacerations were in the upper third. The two patients who were managed as outpatients revealed single laceration in the right vaginal wall which was healing and did not require surgical treatment.

It was not difficult to elicit a history of preceding coitus in all our patients, and this helped us in arriving at an early diagnosis.

Management

Five of our patients required active management. Two who exhibited a state of hypovolaemic shock had to be resuscitated prior to surgery. Initial vaginal packing with flavine roller-gauze while awaiting surgery was imperative in controlling vaginal bleeding temporarily.

Five patients had an examination under anaesthesia and subsequent repair of the vaginal lacerations. All patients had prophylactic antibiotic therapy. Two patients in the post-menopausal group who were treated as outpatients were managed conservatively as their lacerations were healing. They were prescribed conjugated oestrogen cream for local application and advised use of lubricant jelly prior to intercourse. Both subsequently had no further problem.

DISCUSSION

Post-coital lower genital tract injuries, though not a frequent occurrence, are a significant cause of vaginal bleeding in any age group amongst sexually active women.

Reported post-coital complications other than vaginal lacerations include post-coital pneumoperitoneum,¹ post-coital vaginal vault disruption in a patient who had undergone hysterectomy previously,² vaginal evisceration,³ and air embolism following coitus during pregnancy.⁴

The problem assumes a greater significance especially when history of coitus is not forthcoming from the patient and the condition could be subsequently misdiagnosed thus delaying prompt surgical treatment. Smith⁵ in his study on 19 patients reported misdiagnosis on admission in 12 of those patients — an extremely high percentage indeed. Hence, a careful speculum examination in all cases of vaginal bleeding is absolutely essential as there have been reports in the literature of fatalities associated with coital vaginal injury.

Many postulates have been suggested as to the aetiological basis of coital vaginal injuries, and they include:^{5,6,7} disproportion between the male and female genitalia — this assumes special significance in prepubertal females, post-menopausal women, post-operative shortening of the vagina and post-radiation vaginal atrophy; dorsal decubitus with hyperflexion of the thighs, standing and sitting positions during intercourse, roughness and violent thrusts of the penis during sexual intercourse; congenital abnormalities e.g., presence of a vaginal septum which may be torn during intercourse; women at greatest risk are those who resume intercourse after a prolonged period of abstinence, those who have undergone hysterectomy and those who are post-menopausal; the vagina becomes susceptible to injury when its musculature goes into spasm, causing shortening and narrowing of the vagina.

It has been reported that lacerations are most frequently located in the posterior fornix, posterior and lateral vaginal wall more often on the right than the left.

This may be due to the fact that during coitus the lower third of the vagina contracts whilst the upper two thirds expand and lengthen, the uterus rises ventrally thereby exposing the posterior fornix to direct trauma by the glans penis. Furthermore, as the right fornix is usually deeper than the left fornix it is more likely to accommodate the glans penis and be stretched by it. In addition, the poor fascial support of the upper vagina especially the posterior fornix makes it very vulnerable to injury during coitus.

Though in Wilson's⁸ series of 37 patients, only six suffered injury during the first coitus and the others had cohabited several times previously, in our series, three out of the four patients in the younger age group claimed it was their first sexual experience.

CONCLUSION

This article attempts to illustrate our experience with post-coital vaginal lacerations. The incidence, precipitating factors and mode of

presentation of our patients tend to be largely similar to other reported studies. However, first intercourse does seem to be a risk factor in the aetiology of coital vaginal lacerations in our series.

The importance of early diagnosis and simplicity in treatment is stressed. In every case of vaginal bleeding, possible coital laceration should be kept in mind and considered in differential diagnosis.

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