INTRODUCTION

The motorcycle has become a major means of transport in Nigeria, and it is very likely that it will gain more acceptance among the population in the near future. This is due to the fact that other means of transport such as taxis and buses are relatively scarce compared to the number of the population, and on the other hand the quality of the road network often does not allow other vehicles than the motorcycle. Finally, it is much cheaper than a car and offers to a lot of unemployed men an opportunity to open a kind of “transport business”.

With the increasing number of motorcycles the number of accidents has increased and the injuries involved have attracted the attention of several authors. Various types of injuries arising from motorcycle accidents have been described by Nigerian authors1-3, but to our knowledge no reports of scrotal trauma from motorcycle accidents have been published from our region yet.

In the following we present four case reports of patients who sustained scrotal / testicular injuries from motorcycle accidents.

CASE REPORTS

Case No. 1

O.F., a 24-year-old student, was a passenger on a motorcycle involved in a head-on collision with a car. The patient sustained a light head injury and transient loss of consciousness which he regained within few hours. On examination there was a 4 cm curvilinear laceration on the anterolateral aspect of the right hemiscrotum. No significant scrotal swelling could be noted and both testes were normal. There was neither bleeding per urethram nor difficulty with passing urine. The laceration was sutured under local anesthesia. An antibiotic, analgesics and antitetanus prophylaxis were given. The patient was discharged home after 48 hours of admission in a stable clinical condition. The scrotal wound healed with primary intention and the stitches were removed by the 10th day after injury with no sequelae.

Case No. 2

A.O., a 56-year-old retired civil servant and commercial motorcycle rider, was thrown off his motorcycle when he was involved in a head-on collision with a car. A few hours after the accident, he noticed increasing scrotal and phallic swelling, but no associated difficulty in passing urine or bleeding per urethram. Clinical examination confirmed the scrotal and penile swelling which rendered palpation of both testes impossible (Fig. 1). Scrotal exploration under general anesthesia revealed scrotal edema, about 1000 ml of hematoma which had spread to the phallicus and lower abdominal wall and two grossly normal testes. The hematoma was evacuated and a drain was inserted. The scrotal and penile swellings resolved within a week, and the patient was discharged from hospital after 10 days.

Case No. 3

O.L., a 43-year-old man, was a passenger on a commercial motorcycle involved in a head-on collision with a car. He was thrown off the motorcycle and sustained a head injury and loss of consciousness which lasted for about four hours. He also had a burst lacera-
tion of the scrotum. He suffered from initial uri-
nary retention, though there was no bleeding
per urethram. The patient voided clear urine
while being prepared for scrotal exploration
and suprapubic cystostomy. Exploration re-
vealed a 10 cm scrotal laceration and a hema-
toma in the scrotum. The left testis was shat-
tered, while the right testis was normal. The
shattered testis was excised, the hematoma
evacuated, a drain was placed in the scrotum
and the laceration sutured. The patient was
given an antibiotic, analgesic and antitetanus
prophylaxis. He was discharged from hospital
after about two weeks with a normal neurologi-
cal status and a healed scrotal wound.

Case No. 4

O.O., a 40-year-old commercial motorcycle
rider, was involved in a road traffic accident
and was brought to the hospital immediately.
The patient sustained a head injury, transient
loss of consciousness and also a scrotal lac-
eration. He regained consciousness as soon
as he got to the hospital. The scrotal laceration
was about 10 cm long, while both testes were
intact. The laceration was sutured and the
wound healed by primary intention. The patient
was given an antibiotic, analgesic and antitetanus
prophylaxis and he was discharged from
hospital after about 10 days.

DISCUSSION

Urogenital injuries are uncommon4. The
scrotum / testes are among the least com-
monly injured urogenital organs5. This invul-
nerability may be a result of the location of
these organs between the thighs where they
are well protected. However, in a sitting posi-
tion on a motorcycle, the scrotum lies in front
of the individual with the thighs widely apart
which renders the scrotum vulnerable.

Injuries to the scrotum may be sustained
when the motorcycle enters a ditch and the
passenger or rider is thrown upwards. The
scrotum may then be squeezed between the
seat and the perineum as the individual returns
to the seat. This may result in crushing of
the scrotum with intrascrotal hematoma, burst lac-
eration of the scrotum or testicular rupture. A
deceleration injury may occur when the motor-
cykel halts as a result of applying the brake
suddenly, or when it collides with another vehi-
cle or an object, either the rider or the passen-
ger may be thrown forward and the

Fig. 1: Scrotal hematoma extending to the penis following
a motorcycle accident

handle bar of the motorcycle may cause blunt
trauma to the abdomen and perineum, includ-
ing the scrotum5. This trauma may result in
varying degrees of injury to the scrotum and
testes. Penetrating injuries are also possible
when parts of the motorcycle penetrate the
scrotum.

The type or degree of injury sustained by
our patients no. 2, 3 and 4 suggests that they
must have been exposed to a significant
amount of force. However, none of our patients
had associated long bone fractures, although
these were the commonest type of injury re-
ported by Oluwadiya et al.2 from Osogbo,
south-western Nigeria. In his series of 145 vic-
tims of motorcycle accidents 115 (79.3%) had
limb injuries.

Like all other injuries arising from accidents,
scrotal / testicular trauma usually does not oc-
cur in isolation. Associated injuries which are
often life-threatening may demand priority at-
tention which may lead to neglect of possible
scrotal / testicular trauma such as testicular
dislocation or a swollen scrotum with shattered
testes as in case 3 of this report. However,
urogenital injury, if not promptly and ade-
quately treated, may lead to adverse effects on
reproduction. Fournier et al.7 reported that the
likelihood of testicular salvage is approximately
90% if surgery is done within 72 hours but
drops to 48% if surgery is performed after this
period. Therefore, proper examination of vic-
tims of motorcycle accidents should always
include the external genitalia to ensure their
salvage if necessary.9

Not all patients with scrotal trauma need
exploration. If the testes are easily palpable,
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even in the presence of hematoma, these cases can often be treated conservatively. Difficulty in palpating the testes following trauma suggests the presence of a hematocele which should be explored and drained. Then the testis should be repaired or excised as necessary.

Though scrotal ultrasonography was not applied in the management of any of our cases, it is an important tool in making an adequate diagnosis to decide on the proper management. Brown and Dinchman found no specific symptoms or signs that differentiated testicular rupture from other scrotal emergencies and stressed the importance of clinical correlations.

We conclude that scrotal / testicular injury is not common in daily urological practice. However, it should always be borne in mind that it may coexist with other organ injuries caused by traffic or other accidents. Delayed treatment of testicular injury may affect the fertility of the patient. This emphasizes the need for a thorough scrotal examination, especially in traumatized patients from motorcycle accidents.

REFERENCES


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