

Delayed migration of a bullet from loin to scrotum

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ABSTRACT

Here, we report a rare case of migration of a foreign body has occurred from loin to scrotum. A 35-year-old male patient presented with right sided scrotal mass, on exploration it was found to be a metallic bullet. The patient had a history of gunshot injury in his loin 8 years back and was treated conservatively that time. The probable explanation to this mysterious incident may be that, the bullet might have entered the peritoneal cavity through the loin, but did not cause any extensive damage, so the patient well responded to the initial conservative management. With time, due to changes in abdominal pressure or may be due to gravitational force, it had migrated to the dependent scrotum through the patent processus vaginalis. So, this case signifies that a foreign body can migrate through the body planes and get settled far from the primary place.

Key words: Bullet, foreign body migration, processus vaginalis, scrotum

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INTRODUCTION

Migration of foreign body inside the human body is not very common. Implanted materials such as pacemaker, ventriculoperitoneal shunt, hernia mesh, etc., are reported to be migrated from their original area to the distant site; however, the exact mechanism of such migration is not always clear. Here, we present a unique case of foreign body (bullet) migration, which entered in the corpus through the loin and presented in scrotum after a long time of 8 years of initial injury. In our article, we have tried to explain the mechanism and pathway of such migration and also described the consequences following a low energy fire arm injury along with the literature review.

CASE REPORT

A 35-year-old farmer presented to our outpatient department

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complaining of heaviness and feeling a mass inside his right scrotum for last 1-year. There was no significant change in the size of the mass throughout the period, but there was occasional pain, and the size of the hemiscrotum was not increased.

On examination, right testis was found to be in slightly lower down position compared to left, without any visible mass or swelling. On palpation, an elongated, independent, firm structure was palpated in posterior part of right testis. On close observation, the mass appeared to be a foreign body [Figure 1]. Patient gave the history of gunshot in right loin, 8 years back, which was managed conservatively with wound healing over 2 weeks.

Patient was operated under local anesthesia in day care and a metallic foreign body (bullet) was delivered from a patent processus vaginalis sac [Figure 2]. The sac was then excised and the wound taken care of accordingly. We discharged the patient on the same day. The patient is absolutely well in follow-up.

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Figure 1: Impression of a foreign body through the scrotal skin

DISCUSSION

In cases of trauma, if foreign body (metallic or nonmetallic) accidentally entered in body, the wounds is usually surgically explored to control bleeding; to debride the nonviable tissue; to repair the vital structure; and obviously the foreign body, which may be a continuous source of infection is also removed. Thus, the chance of retention of a foreign body like bullet inside the human body like in our case is very rare. Nevertheless, around a retained foreign body extensive fibrosis occurs, so it has a very less chance to migrate.

There are few cases reported in the literature suggesting a migration of foreign body in from the abdomen into the scrotum^[1-4] among them, migration of ventriculoperitoneal shunt is the most common. The probable path of migration was through the unobliterated processus vaginalis.^[1,2] It has also been shown that, migration usually occurs in the right side,^[3] because, right testis descends much later than the left testis, so chance of a patent processus vaginalis is more at that side and a large fraction of adults do have occult patent processus vaginalis without having clinical signs or symptoms of a groin hernia.^[5]

It is really difficult to be sure about the exact path of the bullet in this case. However, it seems that, after entering into the peritoneum from the loin region, the bullet was present quiescent for some time; thereafter due to sudden rise of



Figure 2: A bullet is peeping out as the layers of sac are cut

intra-abdominal pressure such as cough, defecation, etc., or simply due to gravity, the bullet may have gradually traveled through the peritoneal or abdominal cavity and entered into the scrotum through the patent processus vaginalis, which the patient already had.

The uniqueness of our case report is that, with extensive literature search, we have not been able to find any case describing migration of bullet from abdomen to scrotum.

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Conflicts of interest

There are no conflicts of interest.

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