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## **PENILE FRACTURE-AN EMERGENCY**

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## INTRODUCTION-

Penile fracture is a rare but potentially serious urological emergency that occurs when the tunica albuginea, the tough outer layer of the penis, is torn. This injury typically results from forceful bending of the erect penis, often during sexual intercourse or other activities involving the penis.

The immediate consequences of penile fracture can be severe, including pain, swelling, hematoma formation, and potential erectile dysfunction. If not promptly treated, the injury can lead to long-term complications such as penile curvature, fibrosis, and impaired sexual function.

Penile fractures often happen when a hard penis is bent or twisted forcefully, especially during sex or other activities involving the penis. This can occur from sudden bending, being hit by something blunt, or straining while urinating.

When a penis fractures, it often makes a loud snapping sound and becomes very painful and swollen. Other signs might include bruising, a blood clot under the skin, inability to keep an erection, and a curved or misshapen penis. To diagnose a penile fracture, doctors usually ask about what happened and examine the penis. Sometimes, tests like ultrasound or MRI are used to confirm the diagnosis and see how bad the injury is.

## DESCRIPTION

A man in his 30s presented to the emergency department, with pain, swelling and a dorsal curvature in his penis. He had severe pain and lost tumescence with a snapping sound during sexual intercourse. There was no blood at the meatus/hematuria. Taking the typical history and examination findings into account, the diagnosis of penile fracture was made. Following magnetic resonance imaging (MRI), a small defect was observed in the right lateral aspect of the tunica albuginea, which was surrounded by hyperintense material suggestive of a hematoma. [Figure 1A, 1B, and 1C].

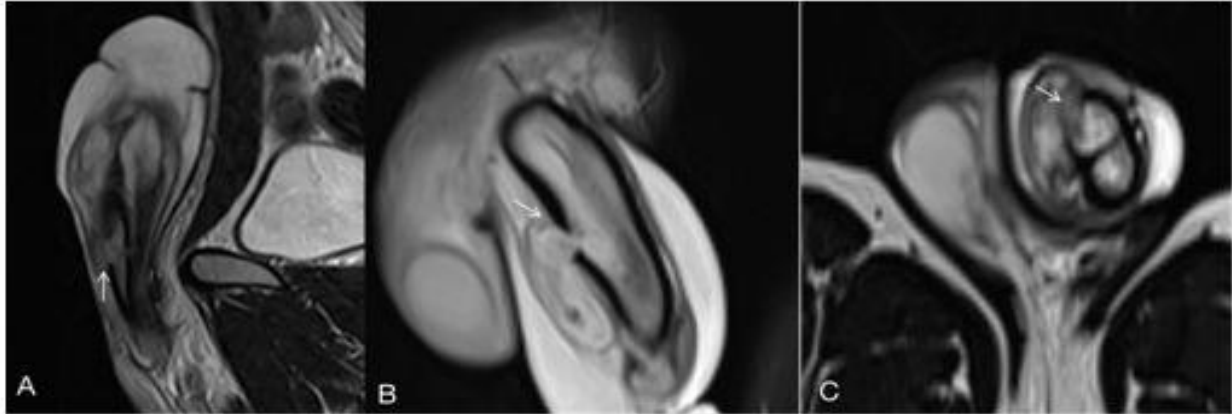


Figure 1A, 1B & 1C: T2-weighted sagittal, T2-weighted coronal and T2-weighted axial images demonstrating a small defect in the right lateral aspect of the tunica albuginea (white arrows) surrounded by hyperintense material indicating a hematoma.

The patient underwent surgery to repair the ruptured tunica albuginea and did not report any complaints in the follow up visits.

Penile fracture is a rare but potentially serious injury that occurs when there is a tear in the tunica albuginea, the thick fibrous membrane surrounding the erectile tissue of the penis. This can occur during vigorous sexual activity, masturbation or even from blunt trauma to the erect penis. The typical presentation includes sudden severe pain, swelling and bruising of the penis. Urgent medical attention is required as delay in diagnosis and management can lead to complications such as erectile dysfunction, penile deformity and difficulty in urination.

Radiological investigations are essential in the diagnosis of penile fracture. Ultrasound is the first line imaging modality, which can identify the site and extent of the tunical tear, presence of haematoma, and the degree of injury to the cavernous bodies. A high-frequency linear transducer is used to visualize the tunica albuginea and identify the site of injury. MRI can be used to evaluate the extent of the injury and is particularly useful in cases where the ultrasound findings are equivocal or to assess for complications such as urethral injury.

In addition to diagnosis, radiology has a role in guiding management. Conservative management is recommended for small and isolated tears of the tunica albuginea, while surgical repair is indicated for larger or complex injuries and in cases where conservative management has failed.[3] Radiological guidance



can be used to ensure accurate placement of the surgical sutures. In conclusion, radiological investigations play an important role in the diagnosis and management of penile fracture. Prompt and accurate diagnosis with appropriate management can lead to favourable outcomes and prevent long-term complications.

## LEARNING POINTS-

- Magnetic resonance imaging (MRI) is an important adjunct to diagnosis.
- Urethral injury should always be chosen for exploration and urethral repair as early as possible.
- If there is no tunica albuginea rupture, the injury can be managed non-operatively with cold compresses and simple analgesia. However, in this case of tunica albuginea rupture, it better to explore surgically and repair the tunica.



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