

Traumatic priapism: an unusual cycling injury

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Abstract

A case is reported of a 35 year old man who sustained an injury to the perineum in a cycling accident which resulted in a traumatic priapism. After confirmation of the diagnosis by Doppler sonography and angiography, therapeutic selective arterial embolisation was followed by successful detumescence of the penis and subsequent return of normal erectile function. It is suggested that percutaneous embolisation of the lacerated cavernosal artery is a safe and effective minimally invasive treatment for this uncommon condition.

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Keywords: priapism; penis; embolisation; perineum; cavernosal artery; cycling

Case report

A fit 35 year old keen amateur cyclist sustained a blunt injury to the perineum on being thrown on to the handlebars of his mountain bicycle. He presented 10 days later with a painless but partial erection that had been present since the accident. He was unable to achieve a complete erection or detumescence, even though he had ejaculated painlessly twice since the injury.

Physical examination showed a partial priapism with no tenderness or bruising. The glans penis was soft and the cavernous bodies compressible. A colour Doppler scan showed abnormally high arterial and venous flow in the corpora, although a fistula was not observed. An internal pudendal arteriogram performed by the Seldinger technique under local anaes-

thesia indicated a laceration of the left cavernosal artery (fig 1A) which was selectively embolised with gel foam sponge (fig 1B), resulting in a gradual detumescence of the penis in the following 36 hours. Normal erectile function gradually returned over the next three months.

Discussion

Priapism is a prolonged penile erection that is unrelated to sexual stimulation. Two forms of priapism are recognised: veno-occlusive or low flow priapism and arterial or high flow priapism. Low flow priapism is the more common and occurs when the corpora cavernosa are engorged as the result of venous out-flow obstruction, typically following injection with intracavernosal vasoactive agents in men with erectile dysfunction. The treatment of these patients is well recognised: corporeal aspiration, sympathomimetic drugs, or surgical shunting procedures are usually successful.¹

In contrast, high flow priapism is rare and has only been reported in a small number of patients.^{2,3} The condition is caused by trauma to a branch of the cavernosal artery, resulting in a greater arterial inflow to the corpora cavernosa than the venous channels can drain. This rare form of priapism is typically painless because there is no tissue ischaemia. Although cavernosal blood gas analysis may be necessary to distinguish between the two forms of priapism,⁴ the history and physical signs in our patient were characteristic of an arterial aetiology and this was confirmed by Doppler sonography.

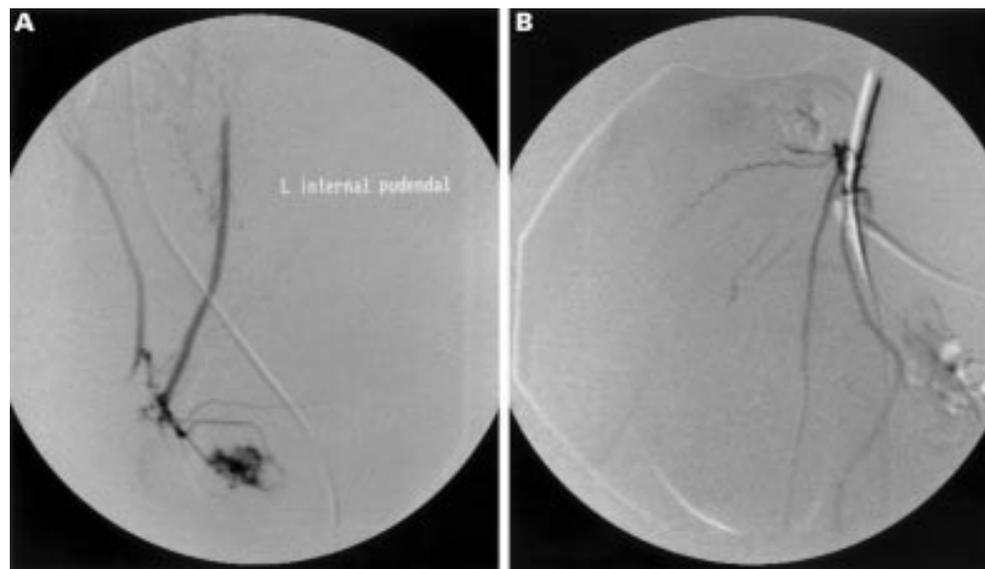


Figure 1 Internal pudendal arteriogram showing a blush of contrast resulting from laceration of the cavernosal artery (A) and after gel foam embolisation (B).

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Although some cases of arterial priapism may resolve spontaneously,⁵ either surgical ligation of the ruptured artery or percutaneous embolisation^{3,6} has been used to treat most patients with this uncommon disorder. In our patient, diagnostic angiography followed by therapeutic arterial embolisation was successful and, we would suggest, is the initial treatment of choice for post-traumatic arterial priapism.

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Take home message

Traumatic priapism is usually due to laceration of a branch of the cavernosal artery. Diagnostic angiography and therapeutic arterial embolisation is the management of choice.

British Association of Sport and Exercise Medicine in association with the National Sports Medicine Institute

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