# A Case of Masson's Tumor of the Penis Presenting as Chronic Pelvic Pain Syndrome

Krasimir Yanev[1], Aleksander Krastanov[1], Marincho Georgiev[1], Andrian Tonev[1], Alexander Timev[1], Angel Elenkov[1]*

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The intravascular papillary endothelial hyperplasia (IPEH) or Masson's tumor is an unusual and rare benign disease. It is histologically characterized by papillary and anastomosing channel-like structures lined by proliferating endothelium. Radiologically, it is usually presented as a heterogenic solid mass with contrast enhancement, with areas resembling necrosis and thrombosis. These signs can easily be attributed to malignancy. The urogenital tract is extremely rarely affected with only 8 cases described in the kidneys and one of the penis. We present a rare case of IPEH at the base of the penis, visible only on MRI, causing chronic pelvic pain and erectile dysfunction. According to available English literature our case is the first in this pelvic location and only the second to affect the penis. Radical excision of the formation cured the condition.

## INTRODUCTION

The intravascular papillary endothelial hyperplasia (IPEH) or Masson's tumor is an unusual and rare benign disease, first described in 1923 by Pierre Masson[(1)]. It is histologically characterized by papillary and anastomosing channel-like structures lined by proliferating endothelium[(2)]. We present a rare case of IPEH at the base of the penis, visible only on MRI, causing chronic pelvic pain and erectile dysfunction. Radical excision of the formation cured the condition.

## CASE REPORT

A 48-year-old male presented with constant pain in the area around the symphysis, perineum and the base of the penis. The pain was associated with sudden onset 6 years ago during sexual intercourse. It gradually became more intensive especially during erection which lead to disturbance of the sexual function. During this period numerous clinical examinations revealed no evidence of urologic disease explaining the symptoms. The patient had been diagnosed with prostatodynia and treated with different pain medications with no effect. When an MRI of the pel-

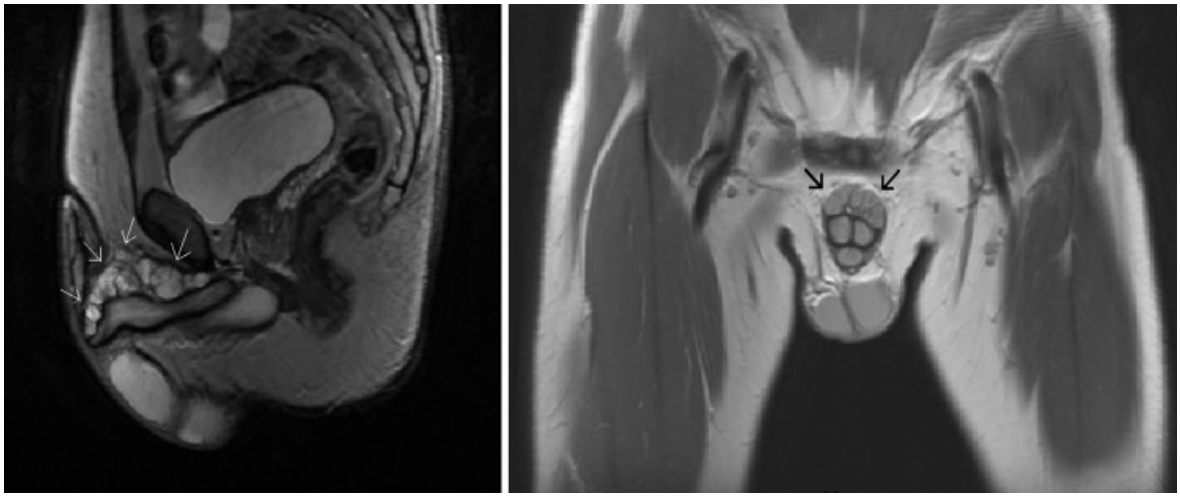

**Figure 1.** Coronal and sagittal T2-weighted images through the penis and scrotum, showing hyper intense mass consisting of deformed, varicose vessels at the base of the penis (arrows). It shows association with the dorsal vein and projects from the crural attachments down to the level of the symphysis where lumens are narrowed.

Medical University Sofia, Bulgaria.
*Correspondence: Department of Urology, Medical University Sofia, Bulgaria.
Tel.: +359 884 73 88 33. E-mail: a.elenkov@abv.bg.
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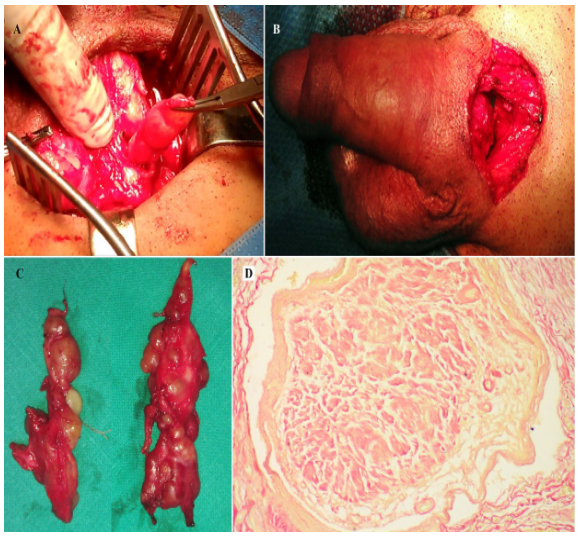


**Figure 2. (A)** IPEH masses during the operation, and **(B)** after their excision. **(C)** Masson's tumors after excision measuring 36/6 mm and 42/7mm with total weight of 7g. **(D)** A venous vessel with obliteration due to recanalized thrombus. **(E)** Higher magnification shows marked endovascular proliferation and formation of a secondary lumen lined with endothelial cells and filled with erythrocytes (Van-Gieson,100x).

vic area was performed, a hyper intense varicose mass was seen to extend from the base of the penis to the crural attachments (**Figure 1**). Based on the MRI find findings surgical excision of the mass was proposed to the patient. Under spinal anesthesia, arch-shaped incision in the base of the penis was performed. The dorsal neurovascular bundle was mobilized and many cystic masses were found to intimately coalesce with it and the surrounding tissues. They extended from crura penis to the symphysis. The masses were excised and the neurovascular bundle was kept intact (**Figure 2 A,B,C**). A redon drainage was kept until the 2nd postoperative day. The patient was discharged on 4th postoperative day. The histological examination revealed benign lesion with typical characteristics of IPEH (**Figure 2D**). On the 20th postoperative day control, pain in the pelvis had disappeared and sexual function was restored On the 20th postoperative day at a control exam the pain in the pelvis had disappeared and sexual function was restored. On follow-up at postoperative 3rd, 6th, 12th and 18th month, no clinical abnormalities were detected.

## DISCUSSION

IPEH is a very rare condition and can be localized in every blood vessel - most commonly in the veins of the head, neck, fingers and the trunk and less frequently in upper respiratory and gastrointestinal tracts[3,4]. The urogenital tract is extremely rarely affected with only 8 cases described in the kidneys[5]. Our case is the first in this pelvic location and the second in the available literature to affect the penis. Only in one case, skin of the shaft has been affected[6]. As a rare disease, IPEH has no distinct radiological appearance. It is usually presented as a heterogenic solid mass with contrast enhancement, with areas resembling necrosis and thrombosis. These signs can easily be attributed to malignancy[5,7,10]. Diagnosis of IPEH can be verified only histologically. At present it is believed to be a means of reactive vascular proliferation secondary to traumatic vascular stasis and is associated with thrombus formation and organization[2]. There are three forms of IPEH: primary; secondary and extravascular[8]. The extravascular form is rarely seen and is due to extravascular hematoma organization[9,10]. The pathological report of our specimen showed signs of the extravascular form - dissemination of the process was observed in the surrounding soft tissues around the neurovascular bundle which most probably is caused by rupture of venous vessels. In our case, the onset of the disease was sudden during sexual intercourse. The trauma had lead led to hematoma formation which had been organized and recanalised with simple endothelial proliferation. This Masson's tumor started compressing the branches of the pudendal nerve and the pelvic periosteum leading to the above described symptoms. Radical excision of the formation cured the condition.

## CONFLICT OF INTEREST

The authors report no conflict of interest.

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