

Case report: Azoospermia as a consequence of bilateral prosthetic inguinal hernia repair

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ABSTRACT We report one case of azoospermia in a patient operated for recurrent inguinal hernia. The patient was previously operated on the other side resulting in a testicular atrophy followed by orchiectomy and consequent implantation of a testicular prosthesis. In the side where we operated the hernia was recurrent. During the operation we have documented a vas deferens completely occluded by the mesh and far from the mesh hole, the testicular vessels were distant from the vas deferent and inside the hole. The hypothesis is that the vas deferens was obstructed by its decubitus on the edge of the hole of the polypropylene prosthesis. This is the second patient that we have found having the vas deferens occluded by the presence of a polypropylene mesh placed after a Lichtenstein hernioplasty.



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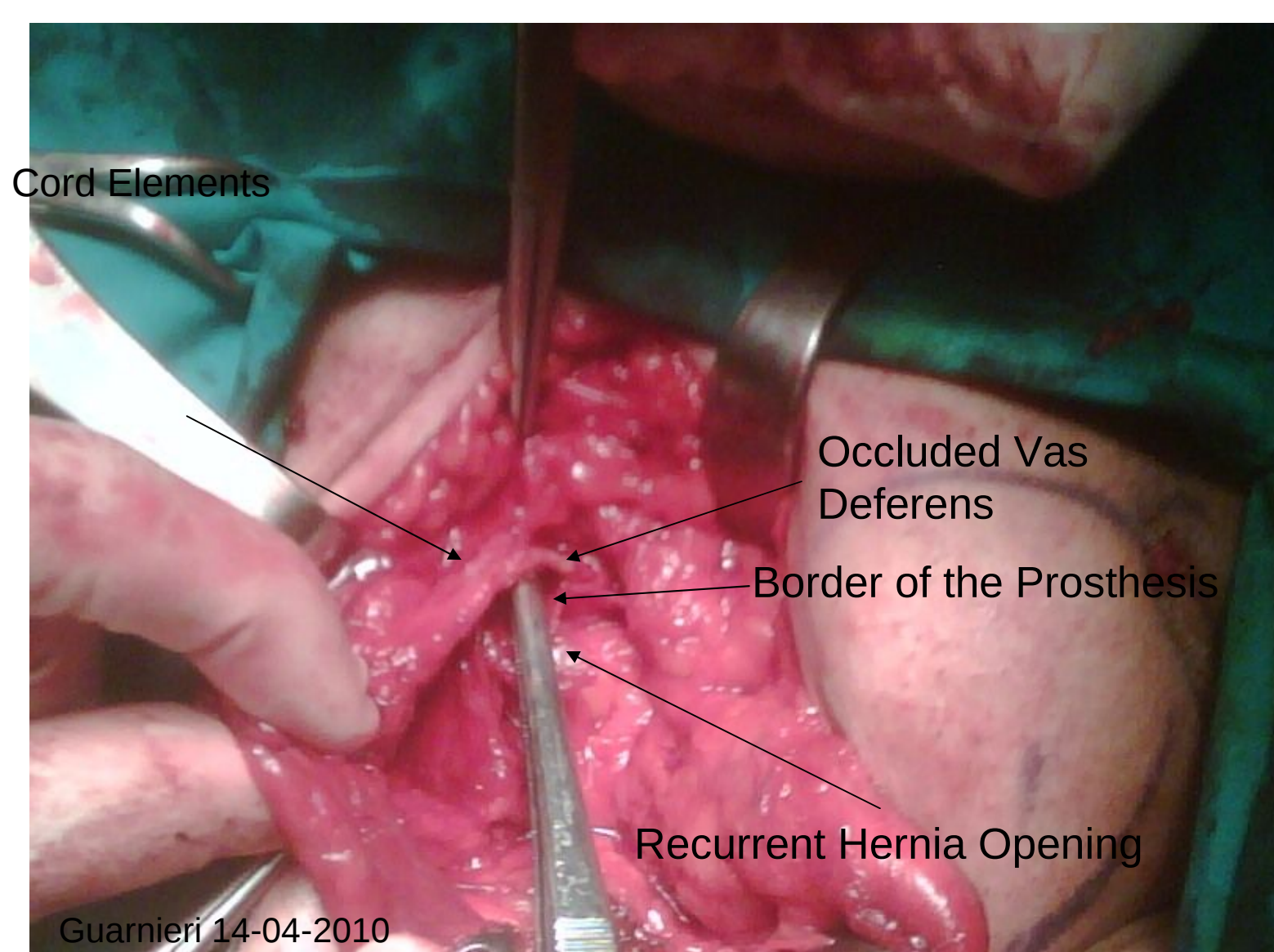
FINDINGS

On April 24th 2010 we have operated a 64 years old man. He had a recurrent inguinal hernia on the right side. He was previously operated for a right primary inguinal hernia on July 2008 with Lichtenstein repair. He was also operated on 2004 on the left side with the Lichtenstein technique resulting on a left testicular atrophy and a subsequent placement of a testicular prosthesis.

A recent spermiogram showed the presence of azoospermia.

Our clinical inspection showed the presence of a massive swelling of the right groin and a right testicle with normal appearance and size.

On the operating table (see the picture on the left) we have found the presence of a right recurrent inguinal hernia as a result of an "explosion like" of the inferior and medial border of a prefascial prosthesis (previous Lichtenstein technique). The mesh was completely detached from the pubic tubercle and from the inferior portion of the rectus muscle. The spermatic cord was anchored to the polypropylene prosthesis. The cord elements were placed inside the prosthetic hole while the vas deferens was placed outside the prosthetic hole few millimeters medially and inferiorly. The vas deferens was completely occluded and ended with a shape like a "hourglass" to the polypropylene prosthesis. There was not a real interruption of the vas deferens because its presence continued also under the mesh. The operation was terminated placing a new mesh under the previous one into the properitoneal space anchored to the Cooper's ligament and then fixed circumferentially. The patient was followed up after one month with no recurrence. This is not the first case with this findings observed at our institution. The presence of azoospermia here reported is the evidence of a complete vas deferens occlusion due likely to the prosthesis and probably not linked in this patient to a surgical accident occurred in the prior operation.



Operative findings: the vas deferent was occluded by the decubitus of the polypropylene mesh, the cord elements were in the right position inside the mesh ring

RECOMMENDATIONS

We recommend to perform a semen analysis (spermiogram) before any recurrent hernia operation. Caution must be used with use of the polypropylene mesh around the cord elements and in a particular way when in contact with the vas deferens. The mesh should be used only when necessary avoiding to use it, above all in young people. The cremaster can be used to protect the cord elements from the mesh.