

Missed lipoma of the spermatic cord

A pitfall of transabdominal preperitoneal laparoscopic hernia repair

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Received: 22 July 1998/Accepted: 22 September 1998

Abstract

Background: Missed lipoma of the spermatic cord is a pitfall unique to the transabdominal preperitoneal (TAPP) laparoscopic hernia repair. This problem occurs when a palpable inguinal mass is noted preoperatively, but no identifiable hernia defect is found at time of laparoscopy and the procedure is terminated.

Methods: Our group encountered six patients without intraperitoneal defects that had large cord lipomas on preperitoneal exploration. Two of these patients had undergone previous intraabdominal laparoscopy for a proposed TAPP repair, which was aborted when no defect was seen.

Results: Both patients were referred for continued symptomatic groin masses, which were subsequently treated by lipoma resection in conjunction with inguinal floor repair.

Conclusions: When patients present with a groin mass, exploration of the preperitoneal space and cord structures is indicated during TAPP repair, even in the presence of a normal-appearing abdominal floor. Abandoning a transabdominal approach without exploration of the preperitoneal structures may lead to a failure to identify symptomatic and/or palpable cord lipomas.

Key words: Transabdominal preperitoneal hernia repair (TAPP) — Inguinal hernia — Laparoscopy — Lipoma — Spermatic cord — Surgery — Laparoscopic surgery

The diagnosis of an inguinal hernia can be straightforward in cases where there is asymmetry of the groin and a palpable, reducible bulge within the inguinal canal. In the vast majority of open repairs, the preoperative diagnosis is corroborated intraoperatively by visualization and palpation of the hernia defect and protruding peritoneal sac. Likewise, during a laparoscopic transabdominal preperitoneal (TAPP) repair, the direct or indirect hernia orifice can be visualized, along with its peritoneal protrusion.

A dilemma arises when there is clinical evidence of a

hernia preoperatively, yet no identifiable intraperitoneal hernia defect is found intraoperatively. In these cases, laparoscopic inspection will reveal a normal peritoneal lining without abdominal wall defects. The surgeon must then decide whether to proceed with exploration of the preperitoneal space and subsequent prosthetic mesh placement or to abandon the procedure.

Materials and methods

Over the past 12 months our group has performed 114 TAPP hernia repairs, all in male patients. Inspection of both inguinal regions was carried out, and in the majority of patients, abdominal wall defects in the direct or indirect spaces were visualized (Fig. 1). In these instances, TAPP repair was performed in the standard fashion [2–6] utilizing a 10–15 × 15 cm polypropylene mesh secured with a spiral tacker (Fig. 2). Bilateral hernias were repaired during the same operation.

In six patients operated on during this period, no identifiable hernia was visualized during inguinal inspection at the time of laparoscopy (Fig. 3). Two patients had undergone previous laparoscopy, but the TAPP repair had been abandoned because no defect was identified. Both patients continued to complain of discomfort in the groin and had a concomitant bulge, which was again noted upon reexamination. In all six cases, TAPP repair proceeded following preoperative physical examinations that were consistent with inguinal hernias.

Results

All six patients with no identifiable hernia defects intraoperatively were found to have spermatic cord lipomas that protruded through the internal ring after creation of the inferior peritoneal flap (Fig. 4). These lipomas were not apparent until the overlying peritoneum was incised and the cord structures were inspected. Reduction and resection of the lipoma was performed, and the patulous opening was repaired with mesh, as previously described. No direct, indirect, or femoral hernias were otherwise identified. Postoperatively, there have been no palpable inguinal bulges and no complications or recurrences to date.

Discussion

Symptomatic inguinal masses palpated preoperatively by the operating surgeon require operative exploration. Although no hernia defects were initially visualized transab-

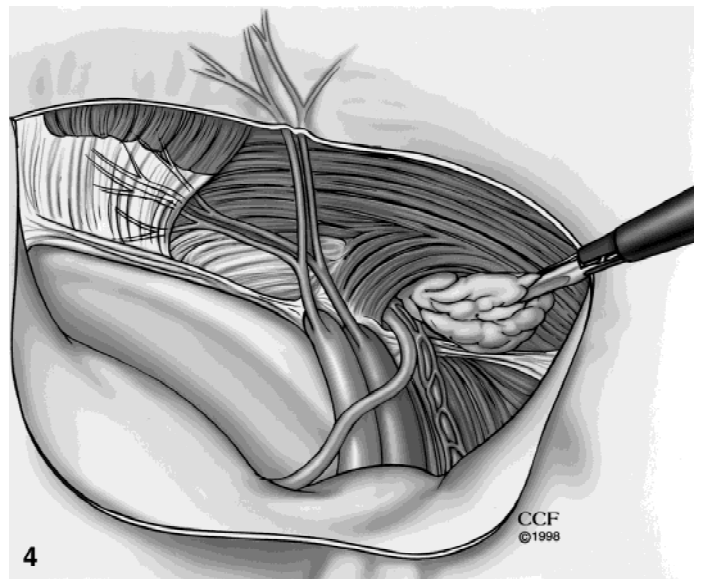
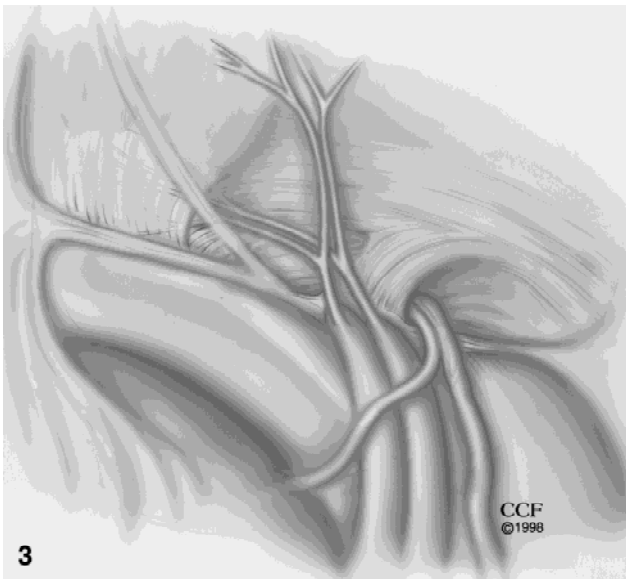
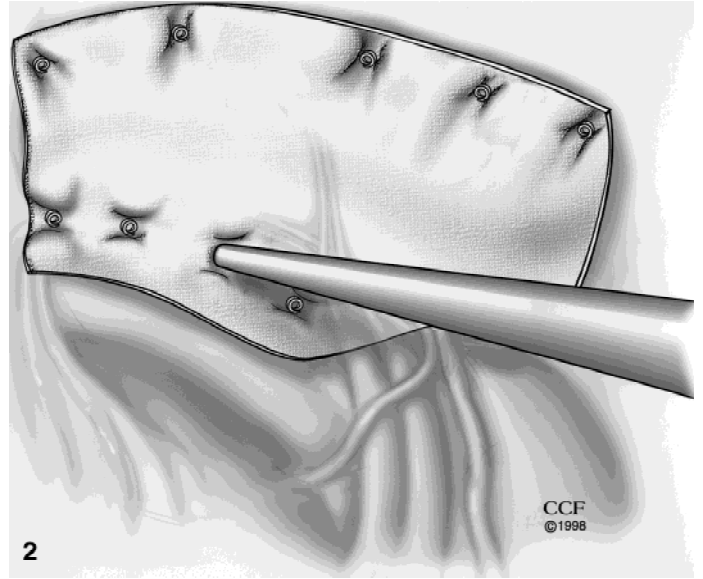
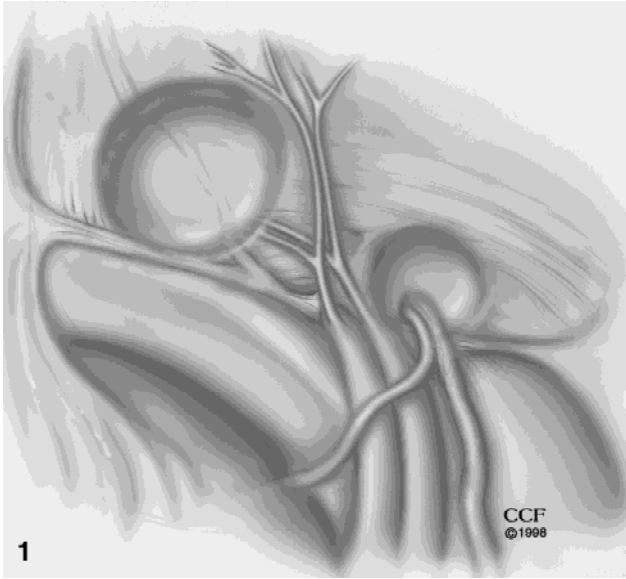


Fig. 1. Inguinal region with intact overlying peritoneum. Direct and indirect hernia defects can be seen.

Fig. 2. Polypropylene mesh is secured to the anterior abdominal wall and Cooper's ligament.

Fig. 3. A normal-appearing inguinal region. No hernia is visualized, but a spermatic cord lipoma cannot be ruled out.

Fig. 4. An inferior peritoneal flap has been created. Exploration of the internal ring reveals a spermatic cord lipoma and patulous ring.

dominantly in this small series, we found symptomatic spermatic cord lipomas in all six patients. These lipomas would have remained untreated if we had relied solely on peritoneal inspection to make the diagnosis. It was not until the overlying peritoneum was opened and the cord structures closely examined that the lipoma and patulous internal ring were appreciated.

Not visualizing (and subsequently not treating) spermatic cord lipomas is unique to the TAPP inguinal hernia repair. In the traditional open approaches, the open preperitoneal technique, and the totally extraperitoneal laparoscopic repair, the internal ring and spermatic cord are always explored. A thorough examination of the cord structures can eliminate the problem of the retained symptomatic lipoma [1]. Therefore, we believe that it is insufficient to merely

inspect the inguinal region with an overlying intact peritoneum.

The preperitoneal space and structures should be explored whenever a preoperative inguinal mass or bulge is noted during examination. This strategy would have eliminated the need for reoperation in two of the six patients in this series. It has been our practice to formally repair the abdominal floor with polypropylene mesh whenever a lipoma is removed and the internal ring appears dilated. No further therapy is required in the absence of a lipoma or abdominal wall defect.

Patients with a documented mass in the inguinal canal on physical exam require exploration of the internal ring and cord structures, even when no inguinal defect is visualized laparoscopically. Routine exploration of these pre-

peritoneal structures will eliminate the need for reoperation if the mass and/or symptoms are due to a spermatic cord lipoma. Simple inspection of peritoneal coverings is inadequate in diagnosing extraperitoneal pathology.

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