

INCIDENCE AND CLINICAL IMPORTANCE OF LIPOMA OF THE SPERMATIC CORD

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Abstract

Introduction: Lipoma of the cord is the most common benign tumour of the spermatic cord. In most instances it is a protrusion of the retroperitoneal fat through the deep inguinal ring rather than a "true" tumour.

Objective: In this study efforts are made to find out the incidence and its clinical significance.

Methods: A total of 120 consecutive patients, having 125 hernia sites with inguinal hernia were included in this study. Hernia operations were performed by total extra peritoneal (TEP) laparoscopic method in 20 hernias and open approach in a Lichtenstein fashion in 105 hernias.

Results: All the patients were male. Indirect to direct ratio was 2:1. The proportion of number of cases with right:left:bilateral involvement was 14:9:1. Incidence of cord lipoma was 9%. Among them only one was "true" lipoma of the spermatic cord. Cord lipomas can not be diagnosed clinically.

Conclusion: Lipoma of the cord can cause hernia like symptoms in the absence of a true hernia. Cord lipomas may be missed at laparoscopic hernia repair procedures and symptoms may persist. This has become more important with more practice of advance laparoscopic procedures.

Key words: Spermatic cord lipoma, inguinal hernia, laparoscopic surgery.

Introduction

Lipoma of the spermatic cord is a common feature in adult male population and may be of sufficient size to cause clinical misdiagnosis.

It is often a difficult diagnosis and usually not settled until the parts are displayed at operation¹⁻³. The term 'lipoma' may be a misnomer because in most instances it is a protrusion of the retroperitoneal fat through the deep inguinal ring usually at the lateral aspect of the cord structures. The blood supply usually comes from beneath the internal spermatic fascia. They are indirect by the definition of cord lipomas⁴. They are more in patients with indirect hernia. True lipomas are rare. They are capsulated benign neoplasm of fat cells and usually have no connection with retroperitoneal fat. Cord lipomas can cause hernia like symptoms in the absence of a hernia. It is difficult to diagnose preoperatively. Big lipomas mimic irreducible inguinal hernia⁵. In ultrasound it is seen as a spindle shaped echogenic mass along the inguinal canal¹. Lipomas of the cords have been relatively ubiquitous in the practice of hernia repair. Their presence is accepted as the incidental finding at the time of open hernia repair. They are either excised or pushed back and repair is completed or mesh is placed in front. With laparoscopic herniorrhaphy, cords lipomas are likely to be missed. This is more so in Transabdominal Preperitoneal (TAPP) procedure than in Total Extraperitoneal (TEP) approach⁶.

Materials and Methods

This is a retrospective study of 125 hernia repairs performed in two different hospitals. One hundred and five consecutive adult open hernia repairs were done at Combined Military Hospital (CMH) Bogra between the period of March 2008 and January 2010. Twenty adult laparoscopic hernioplasty procedures included in this study

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were done at CMH, Dhaka between the period of March 2007 and February 2008. Congenital hernias were excluded from this study. No female with inguinal hernia was found during the period of the study. Hernia repairs were performed either by open approach in a Lichtenstein fashion or by Total Extraperitoneal (TEP) laparoscopic method⁷.

In either way, site and type of hernia and presence of cord lipoma were noted. A lipoma of the spermatic cord was identified as a discrete mass of fat within the inguinal canal. This mass was always continuous with the preperitoneal fat through the deep inguinal ring. The true lipoma remained in the spermatic cord within a thin fibrous capsule easily separable from the cord structures with no connection with the preperitoneal tissue. Preoperative evaluation included a history and physical examination. In no patient ultrasound of the groin was performed. In open hernia repairs, cord lipomas were excised before hernioplasty. At laparoscopy also, the lipoma was excised and repair was completed.

Data obtained were compiled in tabulated form. Categorical data were expressed in percentage (%) and frequency (f).

Results

A total of 120 male patients with 125 hernias were included in this study. Age ranged from 15 years to 80 years with a mean age of 42 years. Among them, 70 (59%) were right sided, 45 (37%) were left sided and 5 (4%) were bilateral inguinal hernias. Indirect hernias were found in 80 (64%) cases, direct in 40 (32%) cases and recurrent in 5 (4%) cases. In total, 11 (9%) cord lipomas were noted (Table I & II). Among them only one was "true" lipoma. This was limited in the inguinal canal with no connection to the extraperitoneal fat. Open operation discovered 10 (90%) lipomas and laparoscopic procedure only one (10%). True lipoma was not associated with any hernia. Seven lipomas (64%) were found on the right side and 4 (36%) on the left. Ten (91%) cord lipomas were associated with inguinal hernia and one (9%) had no hernia associated. This was misdiagnosed before surgery as irreducible

inguinal hernia. Nine of the lipomas were small preperitoneal protrusions of fat through the inguinal ring and only one extended up to the superficial ring. None of them passed beyond it. No recurrence of symptom was noticed in 1-year follow-up.

Table- I: Types of lipoma(n=11)

Types of lipoma	No of cases	%
Cord lipoma	10	91
True lipoma	1	9

Table- II: Association of cord lipomas with types of hernia (n=11)

Types of hernia	No of cases	%
Indirect inguinal hernia	7	64
Direct inguinal hernia	3	27
No hernia (True lipoma)	1	9



Fig-1: Lipoma of the spermatic cord. The mass is seen emerging through the deep inguinal ring with the cord containing the hernial sac(indirect hernia)



Fig-2: True lipoma of the spermatic cord. Cord is seen beside the mass



Fig-3: Excised lipoma

Discussion

Lipoma of the spermatic cord had been relatively unimportant and less focused in the practice of hernia repair. Their presence was accepted as an incidental finding at the time of hernia repair. It was an unimportant diagnosis. The fatty tissues were resected from the cord during open hernia operations and excised. With the advent of laparoscopic herniorrhaphy, cord lipomas are more apt to be missed. Here lies the significance of cord lipoma. Laparoscopic hernia repair operations are relatively new procedures as compared to laparoscopic cholecystectomy. Now a days, it has gained popularity in the developed countries and more than 95% hernia operations are laparoscopic⁸. TEP procedure is considered better in dealing with cord lipomas than TAPP.

Michel et al in their study found an incidence of 22.5% cord lipoma. This figure is much higher than the present study. Racial variations and obesity might be associated with it. Indirect inguinal hernia had more association with cord lipoma. This finding is similar to that of other studies^{7,8}. True lipoma of the cord is also far less common than seen in other studies^{4,8}. Size or length of the lipoma had no relation with age of the patient which is a similar finding to that of some other studies⁴.

Conclusion

Cord lipoma is the commonest tumour of spermatic cord. Though it is not that common, it is getting more important with the use of laparoscopic surgery for hernia operations. Missed lipoma of the cord is a pitfall unique to TAPP laparoscopic hernia repair. This problem occurs when a palpable inguinal mass is noted

preoperatively, but no hernia or intraperitoneal defect is found at the time of laparoscopy and the procedure is terminated. With the more and more use of laparoscopic procedures for hernia repair, this unimportant tumour has gathered much of surgical attention. High frequency, high resolution ultrasound probe can be used in selected cases. More studies are needed to be done to have better understanding of the matter.

References

1. Sudheer G. Musculoskeletal ultrasound symposium. Indian Journal of Radiology and Imaging 2007; 17(4):290-298.
2. Kukleta JF. Causes of recurrence in laparoscopic inguinal hernia repair. Journal of Minimal Access Surgery 2006; 2:187-191.
3. Williams NS, Christopher JKB, Bulstrode PRO. Baily and Love's Short Practice of Surgery, International student's edition. 25th ed. London: Hodder Arnold; 2008:968-990.
4. Heller CA, Marucci DD, Dunn T, Barr EM, et al. Inguinal canal lipoma. Clinical Anatomy 2002; 15:280-285.
5. Cavazzola LT, Lieberknecht M, Machado AX, et al. Giant lipoma of spermatic cord. American Journal of Surgery 2009; 198(5):54-55.
6. Junge K, Rosch R, Klinge U, Schwab R, et al. Risk factors related to recurrence in inguinal hernia repair: A retrospective analysis. Hernia 2006; 10:309-315.
7. Kirk RM. General Surgical Operations. 5th ed. Edinburgh: Churchill Livingstone; 2008:141-153.
8. Michael CA, Maurice EA. Lipomas of the cord and round ligament. Annals of Surgery 2002; 235(4):586-590.