



Just Another Simple Breast Lump or What Else Can Be Found in the Breast?

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Abstract

Lipomas are among the most common mesenchymal tumors and are usually benign, well circumscribed, and covered by a thin capsule, appearing in almost every region of the body with a prevalence of 2.1 per 1000 people. Twenty percent are located in the chest wall. It is difficult to determinate the exact incidence of breast lipoma in the literature as this lesion is paradoxically described as both common and uncommon.

An epigastric hernia is currently defined as a ventral hernia which protrudes through the linea Alba, between the xiphoid process superiorly and the umbilicus inferiorly. Epigastric hernias are usually asymptomatic, being found on routine examination. When symptomatic the main complains are: mild epigastric pain exacerbated by standing, large meals or coughing, being relieved in a supine position. On clinical examination, we can palpate a soft and tender mass, reducible, in the midline, which can protrude by any increase in intra-abdominal pressure (such as Valsalva maneuver or standing). To confirm the diagnosis, an ultrasound or a CT scan is the desired techniques.

In this paper authors present the first ever case of an epigastric hernia in the breast (Lucinda's hernia) presented like a breast lump.

Clinical Case

Female patient of 73 years old with previous hepatic surgery of a hidatic cyst (Kocher incision in the right hipocondrium) in childhood and no other relevant antecedents, presented to our Breast Unit with a rapidly growing palpable lesion in the internal quadrant's transition of her left breast.

Ultrasound was compatible with a large breast lipoma (Figure 1) of 6 cm major diameter, classified as a BI-RADS 2 lesion. Objectively she presented a painless soft mass in the internal quadrants, with almost 7 cm of diameter. A tru-cut biopsy has been performed and the diagnostic was of lipoma.

Being a rapidly growing lesion (diameter duplication in a 6 months follow-up) she has been proposed to surgical excision that accepted.

Surgical approach was of a Gaillard Thomas incision (inframammary fold) and during the blind dissection there was identified an herniary sac containing preperitoneal fat, penetrating the breast through rectus muscles sheath, between xiphoid process and last left costal arch.

The centimetric defect has been corrected with simple tissue apposition suture and the pathology confirmed a non-complicated lipoma.

Discussion

Lipomas are among the most common mesenchymal tumors and are usually benign, well circumscribed, and covered by a thin capsule, appearing in almost every region of the body with a prevalence os 2.1 per 1000 people. Twenty percent are located in the chest wall [1,2]. It is difficult to determinate the exact incidence of breast lipoma in the literature as this lesion is paradoxically described as both common and uncommon [3]. Although lipomas are considered by many to be a banal condition, they often cause diagnostic and therapeutic uncertainty [1]. Breast lipomas usually present as painless, round, mobile masses, with a characteristic soft, doughy feel. Ultrasonography and mammography are the basic techniques for routine imaging. Ultrasound criteria consist of oval, lobulated, homogeneous, solid masses with an echogenicity similar to that of normal fat. The mammographic criteria is well-defined, encapsulate radio translucency or totally fatty circumscribed masses, often with compression of adjacent breast tissue.

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Otherwise, lipoma can mimic a malignant lump. Computed tomography and magnetic resonance imaging can differentiate a liposarcoma from a lipoma by large lesion size, presence of thick septa, presence of nodular, and/or globular of non-adipose mass-like areas, and decreased percentage of fat composition. Sometimes it is necessary, for diagnostic purpose, to collect several biopsy specimens for histological examination. If the clinical diagnosis of lipoma is suspected and confirmed by either FNA biopsy or core biopsy, and the mammogram and the ultra sonogram show nothing suspicious for malignancy at the site, the patient is normally followed through palpation after 6 months [4].

However, core biopsies are somewhat problematic for lipomas, as it is difficult to be certain that the diagnosis is concordant, and lipomas should be surgically excised if they cause diagnostic confusion, continue to enlarge or grow rapidly [5]. Surgical excision through incisions made on the skin overlying the lipoma is often curable and achieve an acceptable cosmetic result. Lipomas of the breast are benign tumours with a very limited risk of malignant transformation; they are associated with an excellent prognosis after successful excision. However, the possibility of recurrence after long lipoma-free intervals should be borne in mind: therefore, an extended period of long term follow-up may be mandatory [1,3]. Hernia can be defined as an area of weakness or severance of the fibro muscular tissues of the body wall. Presently is accepted that the process by which formation of hernia occurs is multi factorial, involving endogenous factors, such as age, gender, anatomic variations, inheritance and exogenous factors, as smoking, Comorbidity and surgical factors [2].

Numerous classifications for abdominal wall hernias have been proposed. In 2009 the European Hernia Society (EHS) reached a consensus about the classification system, with the decision to separate non-incisional hernias - primary abdominal wall hernias, or "ventral" - from incisional abdominal wall hernias, due to their different etiopathology. Regarding ventral hernias, there was an agreement on the use of localisation (midline - epigastric and umbilical, lateral - Spig-lian and lumbar) and size (small (<2 cm), medium (2 cm to 4 cm) and large (>4 cm)) as the variables to use [6].

An epigastric hernia is currently defined as a ventral hernia which protrudes through the *linea Alba*, bordered by the rectus muscles sheath laterally, between the xiphoid process superiorly and the umbilicus inferiorly [2]. The aetiology of epigastric hernias is surrounded by controversy, existing two main hypotheses. The first one, described in 1914 by Moschcowitz [7], was supported by the fact that he found perforating blood vessels during the dissection of epigastric hernias. Therefore, he stated that this penetration formed vascular lacunae, where preperitoneal fat could herniate and enlarge over time. The other one - the decussation hypothesis - was defended by Askar in 1978 [8], who stated that epigastric hernias occur in patients without triple lines of decussation. Probably, elements of both hypothesis predispose to formation of these hernias, when coupled with collagen disorders (less type I collagen and more elastin in the *linea Alba*) or increased intra-abdominal pressure.

This condition is more common in males than in females (3:1) and between the ages of 20 and 50, with an estimated frequency of 3% to 5%. 20% of these hernias are multiple, while 80% are associated with one defect [2,3].

Epigastric hernias are usually asymptomatic, being found on routine examination. When the patients present with symptoms,



Figure 1: Ultrasound was compatible with a large breast lipoma.

the main complains are: mild epigastric pain above the umbilicus, exacerbated by standing, large meals or coughing, being relieved in a supine position. This type of hernia is especially prone to incarceration and strangulation of preperitoneal fat or omentum, which can cause a more severe pain. It's very rare to find a loop of bowel in the hernia sac.

On clinical examination, we can palpate a soft and tender mass, reducible, in the midline, which can protrude and therefore be diagnosed, by any increase in intra-abdominal pressure (such as Valsalva maneuver or standing). To confirm the diagnosis, an ultrasound or a CT scan are the desired techniques [2,3].

One of the most significant challenges in hernia repair is not the operation itself but rather surgical judgment on selecting the most appropriate approach for each patient.

Deciding on an operative approach takes into account surgeon preference, patient preference, and patient and hernia characteristics.

The impact of ventral hernias on the healthcare system is great as it is one of the most common operations performed by surgeons and a staging system can ultimately help tailor operative approaches for ventral hernias and likely improve outcomes for patients [3].

In order to achieve this, it was created the Ventral Hernia Staging System in 2015 that tries to overcome a weakness of previous classification systems by including both surgical site occurrence and hernia recurrence as outcome measures. It has three stages: Stage I includes ventral hernias that are less than 10 cm in width and are a CDC clean wound class; This stage generally has a low risk of surgical site occurrence and hernia recurrence quoted at around 10 % for both. Stage II includes hernias that are either 10 cm to 20 cm wide and a clean wound class or less than 10 cm wide and a contaminated wound class; A contaminated wound class in this staging system is any none clean wound class regardless of whether it is CDC wound class 2, 3, or 4; Stage II hernias have an intermediate risk of surgical site occurrence (20%) and hernia recurrence (15%). Finally, Stage III includes hernias that have a hernia width greater than 20 cm and are clean surgical fields or any contaminated hernia with a hernia width greater than 10 cm; these hernias have high risks of surgical site occurrence and recurrence, 42% and 26%, respectively. This staging system is easy to follow and can be anticipated preoperatively based on clinical scenarios which ultimately should inform discussions with patients and allow surgeons to optimize their operative approach.

Unfortunately, it is currently accepted that outcomes of this surgery are measured in a binary fashion: there is a recurrence or there is no recurrence. But in some cases, a small, asymptomatic recurrence with clear improvement of life quality should not be considered as a failure [10].

Conclusion

To the best of our knowledge this is the first ever case described of an epigastric hernia to the breast, Lucinda´s hernia.

Learning points/take home messages

- Breast masses, even if benign ones require a not always simple and straightforward approach.
- Surgical approach, in some cases can be our only reliable diagnostic tool.
- General surgery remains the specialty with the more broad vision and response capacity.
- This is a first case ever described, name given for epigastric hernia to the breast: Lucinda´s hernia.

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