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Short Communication

Cystic Inguinal Lynfhangioma in Adult Female

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Abstract:

Cystic lymphangioma is an unusual and benign malformation of the lymphatic system. It is related to a failure in the development of the lymphatic vessels, which prevents normal communication between them, leading to progressive dilation and the formation of cystic structures. Diagnosis is usually established during childhood, with up to 90% of cases appearing before the age of 2 years, while its occurrence in adulthood is extraordinary. The most frequent location of these malformations is the neck (75%), followed by the axilla (20%).

Keywords: cystic lymphangioma; magnetic resonance imaging; lymphatic vessels

Introduction

Cystic lymphangioma is an unusual and benign malformation of the lymphatic system. It is related to a failure in the development of the lymphatic vessels, which prevents normal communication between them, leading to progressive dilation and the formation of cystic structures. Diagnosis is usually established during childhood, with up to 90% of cases appearing before the age of 2 years, while its occurrence in adulthood is extraordinary. The most frequent location of these malformations is the neck (75%), followed by the axilla (20%). However, they can also appear in other areas such as the mediastinum, retroperitoneum, pancreas, liver, or inguinal region, in up to 2% of cases [1]. Its symptomatology is mostly secondary to the compression of adjacent structures, which leads to a significant variability of symptoms depending on the specific location [1]. The reference diagnostic method is ultrasonography, although the definitive diagnosis is obtained through anatomopathological analysis. Treatment by complete surgical excision is recommended, given the considerable risk of recurrence, which ranges between 10% and 15% [2].

Clinical Case

This case involves a 42-year-old woman whose only medical history of interest is a left adnexectomy for endometriosis. She was referred from primary care due to the presence of right inguinal pain and swelling, which had been in progress for several months. Upon examination, a mobile, irreducible mass was identified. Also, no hidrocele was observed during Valsalva maneuvers. Given the uncertain diagnostic, further imaging studies were conducted, including an inguinal ultrasound and a magnetic resonance imaging (MRI) scan (figure 1). These studies revealed a cystic lesion of approximately 7 cm in size, raising a high suspicion of inguinal cystic inguinal lymphangioma. After presenting the case in a multidisciplinary session, it was decided to carry out a scheduled surgical intervention. Surgical approach was performed through a right inguinal incision, identifying the lesion previously detected in imaging tests. The tumor was dissected, revealing its extension along the entire inguinal canal, from the labium majus to the preperitoneal space (figure 2). In order to carry out the complete excision of the lesion, it was necessary to section the round ligament. Subsequently, the inguinal ring was closed, approximating the conjoint tendon to the inguinal ligament by continuous slow-absorbing monofilament sutures. To repair the inguinal defect, hernioplasty was performed using a 12 x 8 cm self-adhesive polypropylene mesh. Finally, the inguinal region was closed in layers. The intervention was performed as a major outpatient surgery program (MOS). The patient was followed up one-month post-surgery, showing a good evolution, proper healing, and no signs of clinical recurrence of the tumor. The histopathological examination of the surgical specimen confirmed the presence of a multicavitated cystic lymphangioma measuring 9 x 4 x 3 cm with an internal papilla on one of its walls, with no other pathological findings.

Discussion

Cystic lymphangioma was first described by Redenbacher in 1828[3,4]. In most cases, it is due to a congenital malformation of the lymphatic system. It is usually associated with chromosomal disorders such as Turner syndrom and Down syndrom, as well as malformations in other organs. The most frequent anomalies are cardiacs [2]. Occasionally, its formation has been described as secondary to trauma, infections or local inflammatory processes. Although they frequently appear in the cervical and axillary regions, in up to 2% of cases, they are located in the inguinal region, resembling an irreducible inguinal [1]. Its clinical presentation is quite variable. In most cases, it appears as a painless mass with a progressive growth, causing symptoms due to the compression of surrounding structures. Additionally, though less frequently, it may present as acute pain due to development of complications such as rupture

haemorrhage, or torsion [5]. For diagnosis, ultrasound combined with Doppler examination is considered the gold standard. The general radiological characteristics of these lesions show hypoechoic cystic formations with thin walls and no blood inside [6]. Computed tomography (CT) can be useful to determinate their size, extent and relationship with nearby structures. In cases of diagnostic uncertainty, magnetic resonance imaging (MRI) is often useful, showing hypointense images on T1 and hyperintense images on T2. The use of gadolinium contrast allows us to distinguishing lymphangiomas from other lesions with similar radiological appearances, such as haemangiomas [7]. Fine-needle aspiration (FNA) should be avoided due to the risk of bacterial infection or haemorrhage. The definitive diagnosis is anatomopathological after the excision of the lesion [8]. The differential diagnosis in women should include other lesions such as a Nuck cyst, inguinal hernia or hidrocele cyst of the round ligament. In men, varicocele, hidrocele or epididymal cyst, among others, must also be excluded [2]. The treatment of choice is surgery. The lesion must be completely excised as recurrences have been reported in 10-15% of cases due to incomplete resections. Other proposed treatments include photocoagulation with carbon dioxide (CO2) laser and intralesional injection of corticosteroids or sclerosing agents. Currently, there is no clear evidence supporting their use [9].

Conclusion

Cystic inguinal lymphangioma is a very unusual pathology in adulthood. It should be considered in the presence of progressively growing inguinal masses whose examination is not suggestive of an inguinal hernia. Ultrasonography is the imaging test of choice, but the definitive diagnosis is anatomopathological. Surgery with complete resection is recommended due to the risk of recurrence.

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