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Case Study

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POPLITEAL EPIDERMOID CYST: A CASE REPORT

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ABSTRACT

Epidermoid cysts are rare benign tumors, even rarer in the lower limbs. To our knowledge, we report the 2nd case published in the literature concerning epidermoid cysts located in the popliteal fossa. Epidermoid cysts are almost always taken for Baker's cysts, due to their rarity and clinical presentation wich show a painless mobile mass with a slow progressive evolution motivating the patient to consult when the tumor has reached a large volume. However, ultrasound can already guide the diagnosis before it is confirmed after surgical intervention by histological examination wich found a teratoid epidermoid cyst with hair structures. its nature is benign and its evolution is usually slow and progressive,the mass is generally painless even with pressure. Our clinical case was treated by surgical resection wich was very easy thanks to the thick capsule of the cyst located subcutaneously. The long-term follow-up was satsifactory without degeneration or recurrence.

KEYWORDS: Poplieal, epidermoid, cyst.

INTRODUCTION

Epidermoid cysts are asymptomatic lesions triggered by entrapment of pluripotent cells or following implantation of the epithelium.[1,2] This explains their localization in areas of embryonic fusion by lack of separation of the ectoderm from the mesoderm or after sequestration of the ectodermal tissue during the stages of embryonic development.[3] The aim of our work is to present a very rare clinical case of a very large popliteal epidermoid cyst, To our knowledge this is the first report in the literature of an popliteal epidermoid cyst of such a large size.

OBSERVATION

A 28-year-old patient in good health of black African origin presented for a consultation at the University Hospital of Rabat for an unsightly swelling of the right popliteal fossa (figure 1 and 2) painless, of slow and progressive evolution, of which the onset of symptoms dates back to 2 years, with a relative accentuation of the increase in the volume of the swelling during the last 5 months. Clinical examination showed a mobile mass in relation to the superficial and deep plane, of soft consistency, painless on palpation, of enormous size measuring 16cm* 13cm, completely filling the right popliteal fossa and preventing complete flexion of the knee. The adjacent skin was normal, no keratin plugs were detected. The patient showed no mechanical or inflammatory pain over the mass. The reason for the consultation was purely aesthetic. A Baker's cyst was suspected at the clinical stage, which we tried to confirm by an ultrasound bit it was not in favor by demonstrating a hypoechoic and heterogeneous subcutaneous mass well limited to the popliteal fossa. No sign of ischemia has been found. The patient was admitted to the operating room for resection of the cyst under locoregional anesthesia. A longitudinal skin incision was made, the cyst seated just under the skin, followed by dissection around the mass which was very easy due to its well-defined capsule and lack of invasion of adjacent tissue (figure 3 and 4), the operation was not hemorrhagic. The cyst was dotted with blackish spots and measured 12 cm * 9cm. We noticed the presence of hair like structures within the cyst (figure 5). The pathological examination confirmed the diagnosis of the epidermoid cyst in its teratoid variant. The postoperative follow-up was simple without any complications, the patient could completely flex his knee. After 2 years of follow-up, the patient presented no recurrence.

Figure 1: posterior view of popliteal epidermoid cyst.

Figure 2: lateral view of popliteal epidermoid cyst.

Figure 3: epidermoid cyst after dissection.

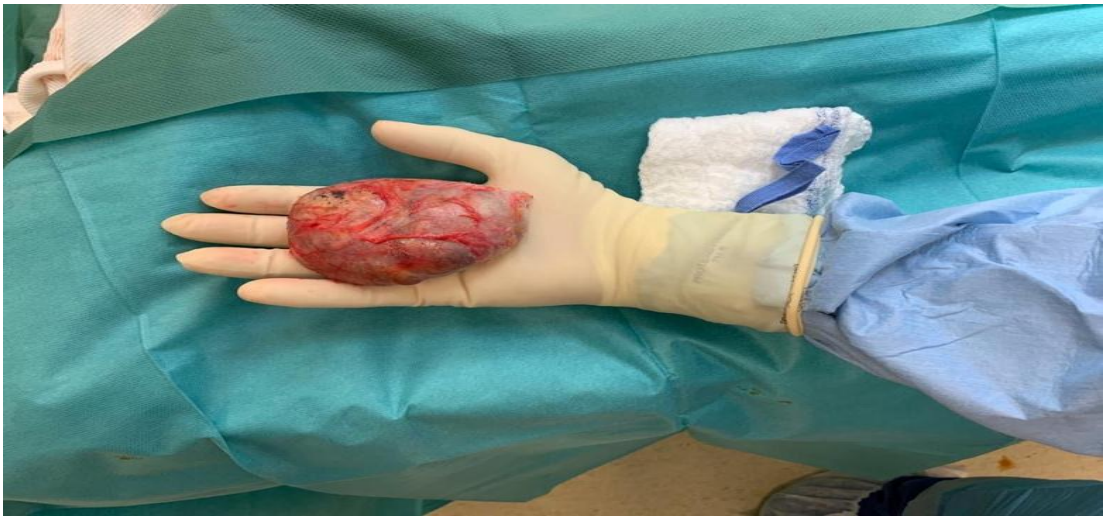

Figure 4: epidermoid cyst after resection.

Figure 5: epermoid cyst with hair structures within the cavity.

DISCUSSION

Epidermoid and dermoid cysts are one of the rare benign lesions, its frequent location is on the neck, behind the ears, trunk, face, or in the palmoplantar region[4] but their location at the level of the popliteal fossa is extremely rare. To our knowledge, this is the second report of an epidermoid cyst located in the popliteal fossa.[7] The etiopathogenesis of the cyst is the rupture of a pilosebaceous cyst or the obstruction of the duct of a sebaceous gland in the hair follicle which can occur in a traumatic context, this was not the case in our clinical case.[5,6] Their evolution is slowly progressive, the palpation is firm to fluctuating, usually mobile except in the case of fibrosis, adopting the shape of ball or dome, A dark keratin plug can be visualized which was not the case in our patient.[7] The rarity of these lesions make their diagnosis very difficult preoperatively, they can be taken for Baker's cyst. The risk of malignant degeneration is present even if it remains very low.[8-9] Ultrasound must be performed to guide the diagnosis before any surgical intervention[10] consisting of a resection which is generally easy thanks to its thick capsule. Only the pathological examination confirms the diagnosis.

CONCLUSION

Epidermoid cysts in the popliteal fossa is an extremely rare benign tumor. There is a report of a huge cyst mistaken for a Baker's cyst and surgically treated with resection with easy dissection. The patient has not had a recurrence.

Consent
The patient has given their informed consent for the case to be published.

Competing Interests
The authors declare no competing interest.

Authors 'Contributions
All authors have read and agreed to the final version of this manuscript and have equally contributed to its content and to the management of the manuscript.

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