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Case Report

Labia minora necrosis secondary to bilateral Bartholin cyst resection: a case report

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ABSTRACT

This is a case report of a necrosis of labia minora secondary to bilateral Bartholin cyst resection. A 48-year-old woman with history of bilateral Bartholin cyst resection in the previous month, she presented a discontinuity of the right labia minora in its upper segment of 2x3 cm, she reported no pain or discomfort, no dyspareunia. A labiaplasty with edge resection technique was performed there were no signs of hematoma or any complications in the procedure. In a 3 month follow up we observed a resolution of necrosis, no dyspareunia and had adequate aesthetic results. This is a rare complication in large Bartholin gland cysts, there is scarce literature about it and there is no evidence as to which labiaplasty technique is superior in the case of this complication. We present an option of treatment in a labia minora necrosis due to a surgical complication.

Keywords: Bartholin gland cysts, Labia minora necrosis, Labiaplasty

INTRODUCTION

Vulvar masses involve mostly the Bartholin gland, the most common masses are cysts or abscesses. Cysts affect 0.6-3% of women and abscesses up to 2%. Blockage of the gland may occur in presence of edema, trauma, or infection, which are normally polymicrobial by constituents of vaginal flora, *E. coli* or *staphylococcus sp*. Malignancy of this gland is extremely rare and occurs predominantly in postmenopausal women.[1,2] Bartholin gland cysts are 93% unilateral, with 50% right sided – 43% left sided, and 7% are bilateral.[3,4]

Complications of a Bartholin cysts resection are mainly neuropathic pain secondary to injury to branches of the pudendal nerve and anatomy distortion.[5] In this case we report a necrosis of labia minora a month after a bilateral Bartholin cyst resection.

CASE REPORT

This was a 48-year-old female patient, without chronic degenerative diseases. She had a history of bilateral Bartholin cysts, the right one measuring 10 cm, soft in consistency, not indurated, without erythema or signs of infection, the left cyst measuring 6 cm with the same characteristics (Figure 1). Resection of bilateral Bartholin cysts was performed in September 2022. No complications presented during the procedure, only extensive dissection of the largest cyst reported. The histopathological report referred a Bartholin cyst with acute inflammatory process.

A month later, in a follow up visit a physical examination was performed and we observed a defect of the right labia minora in its upper segment of 2×3 cm. There was no pain or dyspareunia or other signs of infection (Figure 2).

After reviewing the case we decided that the best treatment we could offer the patient was surgical with a labiaplasty with edge resection technique. In this technique, the excess lip tissue is eliminated by resecting the most prominent part of the labia minora. Subsequently, an invaginating suture is performed on the labia minora to restore anatomy.

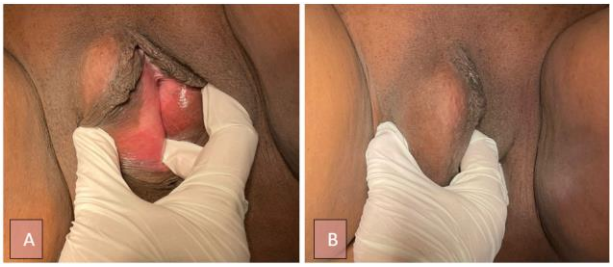

Figure 1 (A and B): Physical examination. Bartholin bilateral cysts.

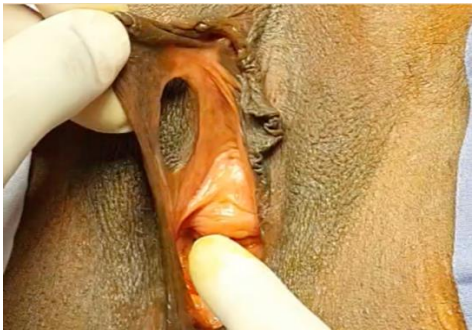

Figure 2: Physical examination. Labia minora defect of 2×3 cm.

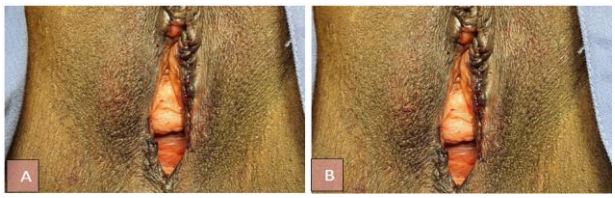

Figure 3 (A and B): Immediate postoperative results.

Immediate postsurgical results are shown in Figure 3, there were no signs of hematoma or any complications in the procedure.

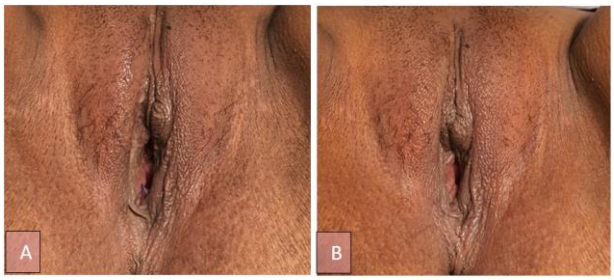

Figure 4 (A and B): 3-month postoperative esthetic results.

In the 3-month follow-up, the patient had no dyspareunia and had adequate aesthetic results, no complications arose from this technique (Figure 4).

The patient did not report any dyspareunia or functional complications.

DISCUSSION

Late complications associated with a Bartholin cyst resection are mainly neuropathic pain secondary to injury to branches of the pudendal nerve.[5] Breaks of continuity have also been described in the ipsilateral labia minora secondary to vascular injury during the surgical intervention.[6]

Likewise, a complicated case with rectovaginal fistula was reported.[7] In the clinical case presented, it is presumed that the necrosis was secondary to vascular injury, ischemia, and subsequent necrosis, or secondary to denervation of the labia minora.

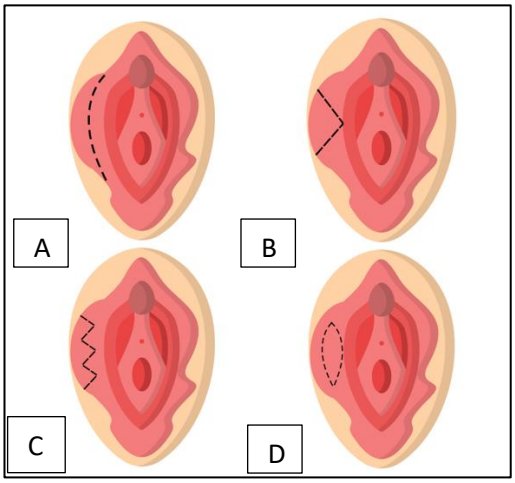

Figure 5 (A-D): Surgical labiaplasty techniques.

Up to 11 different labiaplasty techniques have been described, which can be grouped into three groups: edge resection, wedge resection and central resection (Figure 5). There is no consensus that determines which technique is better.[8] There is scarce literature on this type of complications and there is no evidence as to which labiaplasty technique is superior in this type of complications.

CONCLUSION

This type of necrosis is rare, and related to a devascularization and consequential necrosis. Physicians must be aware that labia minora manipulation and suture must be gentle and we recommend a careful dissection while resecting a Bartholin cyst, avoiding electrocautery as possible to preserve as much vasculature possible to avoid ischemia and necrosis.

ACKNOWLEDGEMENTS

It is important to recognize any possible complications during a surgical procedure and in the postoperative follow up. Management of the vascular structures in the vulvar region is of imperative importance to reduce this type of complications when treating a vulvar mass.

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