# THE TREATMENT OF BARTHOLIN'S CYSTS BY MARSUPIALIZATION

by

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Bartholin's glands are two small racemose glands, about 1 cm. in length, situated posterolateral to the vaginal orifice, one on each side. They lie deeply in the perineum in a highly vascular area and are covered by a thick musculofibrous coat, the duct about 2 cm. long, passing anteromedially, opening just lateral to the hymenal ring at 5 and 7 o'clock positions. They are important glands because they secrete a thin viscid fluid which is essential to maintain the moisture of the vulva. They also play an important role during coitus.

Infection or trauma in or around the ostium of the duct may cause its occlusion and subsequently the development of a cyst or an abscess. Davies (1948) states that, being restrained by a rather thick musculofibrous coat, it is difficult for the gland to enlarge and become cystic. Instead, it is the duct which becomes distended as it traverses the loose connective tissue between the gland per se and its ostium. He also points out that frequently a periodicity in the distension or regression in the size of the cyst is noticed. Such a rhythm suggests that the gland has not been destroyed by pressure necrosis but that the cells are responding to normal physiological process.

In view of these facts it appears that some form of reconstructive method of treatment would be safer and more logical than the destructive one which is so commonly recommended. Marsupialization is a method by which the blocked ostium of the duct is reconstructed easily and the normal function of the gland is allowed to continue. Jacobson (1950) first described this simple operation and reported 10 cases with encouraging results. In his second series (Jacobson 1960) he treated 152 cysts with only 4 recurrences. Tancer *et al* (1956) reported 11 cases with good results. Blakey (1958) showed excellent results in his series of 8 cysts and 6 abscesses. Siganos (1961) treated 10 cysts and 2 abscesses with complete success.

## *Material and Method*

Twenty-two cysts and ten abscesses were marsupialized in Dryburn hospital, Durham, from 1958 to 1961. Two abscesses were marsupialized during pregnancy, one at 8 weeks and the other at 38 weeks of pregnancy. One cyst was operated upon during the repair of an episiotomy wound after the 3rd stage of labour. Two

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patients had recurrent cysts following previous excision of the cyst, twice in each case. One patient presented with an abscess who had previous excision of the cyst once. All cases of abscesses were operated upon under general anaesthesia, and 2% xylocaine was used as local anaesthesia in all cases of cysts.

A vertical incision, about 2.5 cm. long, was made directly into the cyst on its inner aspect just outside the hymenal ring ending inferiorly at about the site of the normal opening of the duct. After emptying its contents and cleansing with normal saline, the lining of the cyst was sutured to each adjacent cut edge of the skin so that when healed, a permanent opening will remain. Six to eight interrupted sutures were required using fine catgut on an atraumatic needle (Fig. 1). No drainage was necessary, and the after-care consisted of saline baths twice daily for the first three days and thereafter once daily for another seven to ten days. Sexual intercourse was forbidden for four weeks.

All patients treated under local anaesthesia were ambulant immediately after operation. Patients treated under general anaesthesia were kept in the hospital for 24 hours and one patient who had operation immediately after the confinement was kept for 10 days in the hospital. All other patients were discharged home a few hours after the operation when the condition of the patient was satisfactory

*Results*

All patients were examined in the follow-up clinic six weeks after the operation and at that time an enquiry was made in all cases to know if there was any discomfort, abnormal discharge or dyspareunia, but none of them had these complaints. The opening of the reconstructed ostium had already shrunk—to about one third of the original size in all cases. Thirty-one patients (one migrated to Canada) were followed subsequently at the interval of three months for one year and then every six months for another two years. When examined again after three months, the opening of the reconstructed ostium was found to have undergone further shrinkage and it admitted only the nose of a small sinus forceps in al cases (Fig II). One patient presented with recurrence of a cyst six months after the operation. Marsupialization was repeated in this case with adequate incision and no further recurrence was observed. In all other thirty cases no further shrinkage of the ostium was observed.

*Discussion*

Excision of Bartholin's cyst is the most popular conventional method of treatment today but it often presents various surgical problems. The dissection may be a tedious procedure and in the event of bleeding and the cyst wall being broken it is difficult to remove the deep lying masses. Auster (1933) believes that a small amount of tissue left behind is sufficient to produce recurrence in most cases. The operation is frequently attended by considerable bleeding, thus consuming more time. Accurate haemostasis is difficult to establish and postoperative haemorrhage is not uncommon. When complicated by infec-

tion, healing may lead to considerable scarring and should a swelling recur it is likely to become painful. In bilateral lesions, the excision of both cysts may cause serious disabilities. Jacobson (1950) reported a case who developed intense itching and a burning sensation around the vulva due to complete loss of secretion. Ruch *et al* (1958) injected warm sterile paraffin and allowed it to solidify in the cyst cavity to facilitate its subsequent excision. Forty cases were treated by this method with no recurrence. This method might make the excision easier but the possibilities of other difficulties mentioned above remain unaltered. Schauffler (1934) used to open the cavity of the cyst or abscess and destroy it with a diathermy coagulation tip. The cavity was then packed and allowed to heal from the base. Sixteen cysts and ten abscesses were treated by him with one recurrence after 2½ years. This method appears to be easier and quicker but it does not preserve the normal function of the gland. Simple incision and drainage of the abscess is also a quicker and easier procedure but the lesion recurs.

A perfect method of treatment, therefore, would be the one which eliminates all these difficulties and at the same time maintains the normal function of the gland. This can be achieved by marsupialization which is a simple procedure with minimal loss of blood, and the operation is very safe and usually completed within ten to fifteen minutes. There are virtually no postoperative complications or morbidity and normal function of the gland is preserved. The operation can be performed during pregnancy with minimal blood loss. The cyst can be treated under local anaesthesia satisfactorily at any time. This obviates the necessity of admitting the patient from a long waiting list, often to find that the cyst has disappeared and the operation is postponed until further recurrence. The post-operative care is very simple and the patients are usually discharged within twenty-four hours, thus saving valuable hospital beds. The lesion does not recur, provided the incision is adequate (not less than 2.5 cm.). The cause of recurrence in one case of this series was the inadequate incision and when marsupialized again with an adequate incision the lesion did not recur.

In this series the lesion was unilateral in all cases. All patients had negative Wassermann and Kahn reactions. In cases of abscesses, staphylococcus pyogenes, B. Coli and anaerobic streptococci were the common invading organisms. Although gonococcus is a rare organism now, in one of Blakey's (1958) fourteen cases it was isolated from an abscess and this serves as a reminder that culture should not be omitted.

*Summary and Conclusion*

Various orthodox methods of treatment of Bartholin's cyst and abscess have been discussed. Of these, excision is probably the most popular method of treatment at present. This may be a difficult procedure at times attended by several complications and moreover it does not preserve the gland which is an important functional organ in a woman.

Marsupialization on the other hand is based on a sound principle in rela-

tion to the anatomy and physiology of the Bartholin's gland and is considered to be a logical approach to the treatment of Bartholin's cyst and abscess. Twenty-two cysts and ten abscesses were marsupialized with excellent results.

In view of the several advantages of marsupialization, I no longer find any place for other methods in the treatment of Bartholin's cyst and abscess.

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*Figs on Art Paper IV*