

# Carbon dioxide laser treatment of Bartholin's gland cyst

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## Summary

The purpose of this study is to present the results of laser surgery for Bartholin's cyst which shows to be a method that is safe, efficient, of low morbidity, and can be performed in an outpatient clinic under local anesthesia.

Of the 22 cases operated on, only two had relapses which were resolved using a second procedure. The average surgery time was short, without bleeding during the operation. Complete epithelization was achieved within a maximum 4-week span with minimal or no postoperative discomfort.

**Key words:** Bartholin's cyst; Laser surgery; Marsupialization.

## Introduction

Vestibular Bartholin's glands drain their mucous content through an orifice in the posterolateral part of the introitus, to the exterior of the hymenal ring [1].

Obstruction of the ducts due to previous infection or mucus may generate the cyst. Its size and growth are dependent on the amount of produced material. If a rapid increase occurs, this may provoke local pain and/or inflammation. When growth is progressive, usually the cyst is asymptomatic or mild dyspareunia occurs [2].

Small cysts do not require treatment. Cysts which are painful or repeatedly infected require surgery. Surgery of choice is marsupialization, creating a new opening for the gland and maintaining its function of vaginal lubrication. However this technique may cause pain, slow healing and painful intercourse [1, 2].

Other techniques, such as puncture, injection of antibiotics and caustic substances and gland exeresis present as disadvantages relapse, haemorrhage and scars [3, 4].

The use of CO<sub>2</sub> laser for the treatment of these cysts has shown to be superior in relation to the conventional methods. It can be performed on an outpatient basis, under local anaesthesia, with minimal or no bleeding, rapid healing and low relapse rate. The technique may be through opening and vaporisation of the cyst capsule or by excision [3-5].

## Material and Methods

In the period from July 1998 to January 2006 we attended 22 patients with a diagnosis of Bartholin's cyst. The mean age of the group was 36.5 years (24-48 years).

All patients were submitted to outpatient treatment. The procedure consisted of antiseptis with povidone-iodine solution, local anesthesia with 2% xylocaine and vasoconstrictor; after identification of the vulvovaginal junction, a vertical 1-cm long

incision was made with a focalized CO<sub>2</sub> laser ray at 20W power (Sharplan 3°C), followed by opening of the cyst capsule with drainage of the content, repair of the margins with exposure of the internal capsule and vaporization with non-focalized ray (2 mm). No suture was performed maintaining the stoma created for drainage open.

The average time to perform the procedure did not exceed 15 minutes.

Patients were advised to take sitz baths in a diluted povidone-iodine solution three times a day and to observe sexual abstinence for two to three weeks. Antibiotics were not administered. Analgesics were used according to the patient's sensitivity.

## Results

The patients were analysed after two weeks and one month of the procedure. During the first two weeks all continued with mucoid drainage, with complete healing of the surgical wound within a period of three to four weeks.

Of the 22 cases operated on, two patients had relapses requiring a second procedure with resolution of the cysts.

In no case was there local retraction and no patients presented pain on sexual intercourse a posteriori.

## Discussion

CO<sub>2</sub> laser showed to be an effective method with little morbidity.

Our study, similarly to others [3-5], shows that healing is rapid with minimal fibrosis and thus little remaining pain, as is observed using conventional techniques.

The women, usually young, are sexually active and physicians should be concerned about the frequent risk of dyspareunia due to fibrosis of the gland.

In addition, this technique allows new sessions in case of relapse.

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Figure 1. — Bartholin's gland cyst.



Figure 2. — Detail of the open cyst; during surgery internal vaporization of the whole capsule was performed.

Because it is an outpatient method, the patient does not need to be absent for a long time from her activities, does not require hospitalisation and there is a reduction in hospital costs. On the other hand, the equipment is expensive and requires a qualified professional for its manipulation.

### Conclusion

CO<sub>2</sub> laser surgery is an efficient method for the treatment of Bartholin's gland cyst, with minimal or no healing complications, and is an outpatient method of rapid performance.

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