

Cervical Stenosis following a Laser Cone Biopsy – An Uncommon Presentation in Labour

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ABSTRACT

Cervical stenosis following a laser cone biopsy is an uncommon presentation in labour. A 33 year old woman conceived naturally, 6 years after undergoing a laser cone biopsy of the cervix. She had an uneventful pregnancy.

She presented to the delivery suite at 39 weeks of pregnancy in early labour, with a spontaneous rupture of the membranes. The labour failed to progress despite her having adequate uterine con-

tractions and the syntocinon infusion.

She was found to have a scarred, stenosed cervix and no cervical opening was seen. She delivered by emergency Caesarean section with the creation of a cervical opening for the lochia to drain.

The patient had an uncomplicated post-operative period. She was reviewed six weeks after her delivery. The abdominal wound had healed well and the speculum vaginal examination revealed a short scarred cervix which had healed well and had a visible opening

Key Words: Cervix, Conization, Labor, Stenosis, Syntocinon

INTRODUCTION

Cervical stenosis means that the opening in the cervix is narrower than normal. In some cases, the endocervical canal may be completely closed. The symptoms depend on the degree of stenosis and on the menopausal status. The pre-menopausal patients may have a collection of blood inside the uterus, which in turn, may cause sporadic bleeding and pelvic pain. Such patients are also at a risk of infertility and endometriosis. The stenosis may impact the natural fertility by impeding the passage of semen into the uterus and it can complicate intrauterine insemination and In Vitro Fertilization (IVF), and if pregnancy is achieved, the labour may be complicated by cervical dystocia, as in our patient.

Cervical stenosis may be present from birth or it may be caused by other factors like surgical procedures which are performed on the cervix, such as laser cone biopsy, Large Loop Excision of the Transformation Zone (LLETZ), cryosurgery and trauma to the cervix (curettage). The incidence of cervical cancer has significantly lowered; following the wide spread cervical cancer screening and the subsequent treatment of the Cervical Intraepithelial Neoplasia (CIN).

The removal of cervical tissue can alter the integrity of the cervix and this usually increases the risk of a preterm delivery before 34 weeks of pregnancy, low birth weight babies and cervical incompetence. After the excessive scarring of the cervix due to fibrosis, it may be severely stenosed, resulting in cervical dystocia. In the first stage of labour, a failure to progress needs a Caesarean section.

The treatment of cervical stenosis involves opening or widening of the cervical canal. This can be temporarily achieved by the insertion of dilators into the cervix. A surgical enlargement of the cervical canal can be achieved by a hysteroscopic shaving of the cervical tissue. This condition may improve on its own following the vaginal delivery of a baby.

CASE REPORT

A 33 year old patient presented in her second pregnancy with the

spontaneous rupture of the membranes at term. Her past obstetric history included one spontaneous vaginal delivery of a healthy baby who had weighed 3.2kg at 36 weeks of gestation.

In 2003, six years after her normal delivery, the patient had a laser cone biopsy for histologically confirmed severe dyskaryosis (CINIII). The subsequent follow up cervical smears and colposcopic examinations were normal. Six years after the cone biopsy, the patient conceived spontaneously. The antenatal period was uncomplicated and she presented to the delivery suite at 39 weeks and 5 days of gestation with the spontaneous rupture of the membranes. Speculum examination revealed clear liquor draining, and the cervix could not be visualized. Spontaneous labour did not occur after 24 hours and thus a syntocinon infusion was commenced to stimulate labour. Four hourly vaginal examinations revealed a scarred stenosed cervix, with no clear opening. After 10 hours of receiving oxytocin infusions, there was no cervical dilatation despite regular, strong contractions occurring every 3 minutes. Thus, the baby was delivered by lower segment Caesarean section.

A healthy male baby who weighed 3.5kg was delivered easily. Following the delivery of the placenta and the membranes, the lower uterine segment was explored and no cervical opening could be found. The cervical dilator was left in the lower uterine segment; the patient was put in the lithotomy position and was again assessed vaginally for the presence of the cervix. A minimal cervical scar tissue was felt; a small opening which measured about 1cm was made by using diathermy through the cervical scar tissue, which was guided from above by the cervical dilator and the cervical opening was fashioned to drain the lochia. The uterus and the abdomen were closed in layers and the cervical opening was repaired with a running locking vicryl no 1 suture. Then the dilator was removed. At the end of the procedure, the cervical opening was found to be about 1cm and a good haemostasis was achieved.

The patient had an uncomplicated post-operative period, and was discharged home on the third post-operative day. The patient was

reviewed 6 weeks after her delivery. The abdominal wound had healed well and the speculum vaginal examination revealed a short scarred cervix which had healed well and had a visible opening.

DISCUSSION

Monteiro et al., [1] reported a crude incidence of cervical stenosis of 7.66% following cervical conization. The cervical stenosis in this case had most likely occurred secondary to the laser cone biopsy which had been performed six years earlier. There must have been a pinhole opening in the cervix which was sufficient to allow the leakage of amniotic fluid and menstrual blood and the entrance of spermatozoa. The cervical scarring had prevented the clear identification and the dilatation of the cervix in labour. Cervical conization is the usual treatment for severe dyskaryosis of the cervix. It has become clear that this treatment can have adverse effects on the outcome of the subsequent pregnancy.

Moinian et al., [2] reported that 20.5% of the pregnancies following cone biopsies required cervical cerclage because of a suspected cervical insufficiency or a Caesarean section because of a scarred cervical stenosis. The latter complication certainly occurred in our patient. Leusley et al., [3] (1985) and Leiman et al., [4] found that cervical stenosis was commonest among the women who had long cervical cones which had been excised by knife cone biop-

sies. We feel that the laser conization of the cervix which had been performed in our patient was the cause of the cervical stenosis and the unusual presentation in labour. Masami Hayashi et al., [5] found that the insertion of a Malecot catheter into the uterine cavity could provide a useful conservative management technique for post-conization stenosis.

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