

Hysteroscopic Management Of Cervical Stenosis

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Seventeen cases of infertility due to cervical stenosis were treated with hysteroscopy October 1993 and December 1996. The initial procedure was followed by repeated cervical dilatations at 1-3 week intervals. The stenosis was corrected in all 17(100%) cases. Eleven(64.7%) out of the 17 were proven to have patent tubes. One patient conceived and delivered a preterm infant weighing 1.7kg. Hysteroscopy is essential in treating cervical stenosis under vision. It is an effective method of treatment of such infertile patients

Key Words: Cervical stenosis; Hysteroscopy; Dilatation.

The uterus because of its anatomical location and easy access is exposed to easy damage by disease and instrumentation. This results in serious damage to its structure and function i.e. reproduction. The same feature i.e. easy access can be made use of in diagnosis by just inspection of the cervix alone and treatment by simple or special instruments.

The cervix has a canal bound superiorly by the internal os and inferiorly by the external os. The cervical canal is lined by the mucosa, which is thrown into folds. Rarely, the cervix can be devoid of a canal congenitally because of atresia. In a previously normal cervix the canal may become stenotic due to a variety of reasons e.g. infection or surgical injury^{1,2} or chemical damage. Such patients can be helped by cervical dilatation guided by hysteroscopy.

Patients & Methods

The study was carried in Lady Willingdon Hospital and a private hospital in Lahore, during the period October 1993 to December 1996. Hysteroscopy was performed as a diagnostic procedure for a variety of reasons. Patients included in this study were those who presented with infertility and had cervical stenosis.

Cases of the cervical stenosis were either diagnosed on pelvic examination for failure to successfully introduce a uterine sound or a cannula for hysterosalpingography or laparoscopy or during hysteroscopy.

Patients with other causes of cervical stenosis like postmenopausal cervical stenosis and those in the reproductive age but with no desire for any further pregnancy were not included in this study.

The hysteroscope used was a 4mm-diameter telescope with a sheath and a 30-degree tip. Carbon dioxide was used as the distension medium primarily. If the view was obscured due to uterine bleeding then 0.9% saline was used.

In the patients where the external os were stenosed it was dilated first up to 5mm with Hegar dilators, ensuring that the tip of the dilator did not go up much beyond the internal os. Visualization of the cervix and completion of the hysteroscopy followed this. In patients where the stenosis was above the level of the external os the hysteroscope was introduced first to see the lesion. It was also used as the first dilator if the stenosis was not too

bad. If it was so, then the cervix was dilated upto 5mm with a Hegar dilator. Hysteroscopy was completed subsequently. The procedure was carried out under general anesthesia or paracervical block.

Post operatively the patients were followed up for upto four menstrual cycles. The cervix was dilated upto 5mm 1-3 times during a cycle. It was done first at the end of the menstrual phase on the closest possible scheduled operation day of the unit. When it was seen that the cervix no longer remained stenotic for three consecutive follow up visits then the treatment was considered completed. Treatment was considered successful if a 5mm dilator could be passed into the cervix without pain or resistance.

Results

A total of seventeen cases of cervical stenosis were treated during the period of study.

Ten patients had primary infertility and seven had secondary infertility. Fifteen of the seventeen patients had undergone D&C at least once. Only two patients with primary infertility had no history of previous instrumentation.

Eight of the patients with primary infertility and all seven of the patients with secondary infertility had undergone diagnostic Dilatation and Curettage(D&C) or Evacuation and Curettage(E&C) at least once. The cause for stenosis could not be determined on the basis of history in the remaining 2 patients.

There were 3(17.6%) patients who had stenosis at the external Os and on hysteroscopy the canal appeared normal above the lesion.

In 8(47.10%) women there was loss of cervical mucosa with stenosis of the internal Os. In the remaining 6 patients there was a normal cervical canal with stenosis of the internal Os.

A false passage was found amongst the 5 patients with a lesion in the canal or at the internal Os.

In the follow up period all 17 patients had dilatation of the cervix ten days after the initial procedure. These patients had an average of five dilatations. The minimum number of dilatations

required was three and the maximum was seven.

All 17 (100%) had correction of the stenosis. A 5mm Hawkin Ambler cervical dilator could be introduced without pain or resistance.

Fourteen patients had a tubal patency test in the form of laparoscopy or hysterosalpingography. Of these 11 had patent tubes and 3 had blocked tubes.

During the period of study one patient conceived but delivered preterm with the infant weighing 1.7 kg giving a success rate of 5.8% for all patients treated and 9.1% success for the patients who had patent tubes.

Discussion

Investigation and surgical treatment of infertility is a specialized work, which should be carried out by those who are well versed in it and have the necessary skill. Diagnostic curettage is quite commonly performed as a part of work up of infertility by many who are involved in gynaecological practice. This includes family physicians and para medical personnel.

While performing curettage in a nulligravid uterus, it is quite difficult to dilate the internal Os sufficient enough to allow easy introduction of the curette available. Therefore when this inadequately large sized curette is used, it has to be pushed up into the uterine cavity. With each stroke of the curette the internal Os and the canal are scratched. Such strokes inadvertently denude the internal Os and the canal of their lining resulting in fibrosis and subsequent stenosis.

It is suggested that if cervical injury has occurred because of curettage and the histology report also shows presence of endocervical tissue, then the post operative stenosis can develop and should be looked for during the follow-up visits. It is also re-emphasized that patients with infertility should have a thorough pelvic examination including inspection of the cervix and sounding as a part of the routine preliminary workup before embarking on any expensive and invasive methods of investigation.

A false passage was found in patients who gave history of recent unsuccessful attempt at hysterosalpingography, dilatation and curettage or laparoscopy.

The cervix was dilated postoperatively at intervals of one to three weeks, depending on the findings and convenience of the patients to return for the follow-up visit. Some of the patients had to come from a distance of more than a hundred kilometers. The maximum interval for a follow-up visit should not be more than three weeks and the dilatation was easier immediately after the menstruation.

Stenosis of the cervix may result from radiotherapy for malignant disease³ but such patients were not included in this study. Dilatation of the stenosed cervix has been tried with other devices like the angioplasty balloon⁴. It is expensive and difficult for our patients to afford it. Another device for successful cannulation of the cervix is by the modified Tom Cat catheter⁵.

Patients who had loop electrosurgical excision of the

cervix did not have any adverse effects on subsequent pregnancy outcome and parturition⁶. Success in achieving a pregnancy has been reported after Zygote Intra-Fallopian Transfer (ZIFT) in a patient with congenital cervical atresia⁷, which gives hope to such patients.

Similarly cervical damage and stenosis can now be considered to be a treatable condition. In patients who do not conceive naturally in a period of one or two years may be considered as candidates for intra uterine insemination. This is so because even if the stenosis has been corrected, the damage to the cervix might result in impaired function. If cervical damage has occurred inadvertently or following a cone biopsy, sequelae can be prevented by using a cervical stent⁸. Intrauterine adhesions can also be diagnosed⁹ and treated preferably better¹⁰ on hysteroscopy.

Conclusion

Dilatation of the cervix after hysteroscopic visualization instead of blind instrumentation is an effective method of treating cervical stenosis. It is an addition to the various other options available to treat infertility due to cervical stenosis, especially for patients who cannot afford expensive assisted reproductive techniques for the treatment of infertility.

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