ENDOMETRIAL ABLASION FOR MENORRHAGIA EXPERIENCE WITH THE FIRST 30 CASES

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SUMMARY

30 patients of Dusfunctional Uterine Bleeding (DUB) were treated by Transcervical Resection of Endometrium (T.C.R.E.) instead of hysterectomy. Surgical time required was 15 to 35 minutes. Procedure was done using the standard urological resectoscope and 400 Watt cautery. Irrigant used was Glycine 1.5%. Follow up period was from 4 months to 24 months. Menstrual symptoms improved in 93% of the patients.

INTRODUCTION

Minimal invasive surgery is fast replacing the conventional major surgery. Techniques aimed at ablating the endometrium may come to replace hysterectomy for menorrhagia in the near future.

Recently most attention has been focused on hysteroscopically directed ablasion of the endometrium either by laser or by electrocautery.

Hysteroscopic Trans Cervical resection of endometrium (TCRE) was first described by DeCherny and Polan (1983) in the U.S.A. This method was further developed by Hallez and Perino (1988) in France and U. K. by Magos et al. (1989).

The concept of TCRE is removal of the whole thickness of endometrium along with some portion of myometrium giving rise to a fibrotic response resulting in hypomenorrhoea or amenorrhoea.

The limitations and technique of resection have already been proved in transurethral resection of prostate.

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PATIENTS AND METHODS

TCRE was started in this hospital from July 1990. Only the first 30 cases are included in this study. Indication in all was D. U. B., where medical line of treatment had failed, justifying a hysterectomy. Menorrhagia was defined subjectively as unacceptably heavy menstruation, with atleast 2 days of clotting or flooding. The patients were between 35 to 47 yrs. of age. All had completed their family. Haemoglobin in 17 patients was between 6-8 gm%. 3 patients were given Danazole for 3 weeks preoperatively

to thin out the endometrium. 27 procedures were done postmenstrually.

Before the procedure a pelvic sonogram was obtained to determine the size of the uterus, to rule out other abnormalities such as fibroids or ovarian pathology. A pap smear was taken to rule out cervical pathology. Other routine preoperative investigations were undertaken.

The procedure was explained to each patient in detail. An informed consent stating the contraceptive effect of the procedure but no guarantee of sterility. Similarly no guarantee of amenorrhoea was included in the consent. Consent for laparotomy or hysterectomy if required, was also obtained.

PROCEDURE

All the cases except the first one were done under General Anaesthesia. The patient was given the lithotomy position. Cervix was dilated to No. 10 Hegar. The continuous sheath of urological resectoscope with obturator in place was introduced into the uterine cavity. The obturator was removed. Then Storz resectoscope with 5 mm. Hopkins I telescope with 30° oblique was introduced through the sheath. Cutting was done by standard 26 Fr. cutting loop. Irrigation was done by 1.5 % Glycine. Pressure was maintained by increasing the pressure in the Glycine Chamber by means of a B.P. bulb. The pressure could be maintained very satisfactorily with this technique. Fall in pressure that usually happens while using a pressure jacket does not happen with this device. Pure cutting and coagulation current was used. In all the cases the same technique was followed.

After viewing the cavity for any abnormality such as polyps, fibroids, Ca-endometrium, fundus was tackled first. Next the posterior uterine wall was resected. Consecutive strips of endometrium were cut. The white striated myometrium stands out from the shining pink endometrium. Strip by strip the whole of the uterine cavity was resected systematically.

The cervical canal epithelium should not be resected. The whole procedure usually takes 15-35 minutes. On an average Glycine requirement varies between 2-3 litres. Glycine absorption is around 300 ml.

RESULTS

Endometrial resection for menorrhagia was started in July 1990. The first 10 cases were done by Dr. Sanjay Kulkarni, a urologist and Dr. Sanjay Bidaye, Gynaecologist. Later the entire procedure was performed by the gynaecologist. The 30 cases were followed for a period of 4 months to 24 months.

Time taken to complete the surgery diminished as the expertise grew. The first case was done under spinal analgesia. Later all the cases were done under general anaesthesia. This shift was done because patients could be discharged within 12 hours of surgery, after general anaesthesia.

While resecting, venous channels are opened and the irrigant (Glycine in our case) gets absorbed. When more than 2 litres is absorbed, it gives rise to fluid overload, hypertension, hyponatremia. This is known to urologists as T.U.R. Syndrome. We did not have a single case, as fluid absorption was never more than 500 ml. (150-500 ml.) As the operating time started diminishing absorption became much less. In our last few cases absorption was only about 150 cc.

2 of our patients had uterine perforation. One was during resection so a minilaparotomy was done and the defect was closed. The second case happened when the chips were being removed by ovum forceps, so the patient was tackled conservatively and sent home the same day. This gives the incidence of 6.6%.

Intra and postoperatively bleeding is very minimal. We did not have a single case of alarming haemorrhage. Inspite of low haemoglobin no patient required blood transfusion. Even I.V. fluids were not required for

majority of the patients.

28 out of 30 patients went home within 12 hours of surgery. The first patient went home on the 4th day for a) spinal analgesia and b) it was our first case !!! One patient who had a minilaparotomy for perforation was also discharged on the 4th day.

No patient was readmitted for a complaint referable to the procedure.

Postoperative analgesia for 2 days was required by only 1 patient. All others (except a patient of laparotomy) did not require even paracetamol afterwards.

Postoperatively slight vaginal bleeding continued for 4-5 days. But in most of the cases stopped after 2 days.

Some serosanguinous vaginal discharge continued for 2 weeks but in most of the cases stopped after 5 to 6 days.

Recovery time was defined by us as the day on which she felt as fit as she was before. This was usually 7 days.

Most of the patients joined work by the 5th day.

H.S.G. at the end of 7 months shows a small fibrotic cavity. This was performed on first 12 cases.

9 patients (30%) have reported amenorrhoea for more than 7 months.

19 patients (63%) are hypomenorrhic. Most of them had scanty bleeding for 1-2 days during menstruation. 2 of our patients did not get any relief (6.6%). They underwent hysterectomy 4-6 months after T.C.R.E. When the uterus was examined post operatively one patient had a very small area of endometrium remaining. So this case could have been tackled by a repeat T.C.R.E. The second case had deep endometriosis and fibroid which was missed on the sonogram.

Overall 93% of the patients improved with the procedure.

DISCUSSION

The concept of achieving a therapeutic Asherman's Syndrome to achieve amenorrhoea is not new. Our experience shows that TCRE is an effective means of denuding the uterine cavity of endometrium and inducing a fibrotic response, thereby abolishing or minimising menstrual bleeding.

Comparision of TCRE and other minimally invasive procedures for endometrial ablasion is worthwhile. Laser ablasion has been reported to produce amenorrhoea in between 12 and 71% of cases with satisfactory rates of 48 to 100%. Radio frequency produced amenorrhoea in 0 to 30% and satisfaction in 35-85%. In rollerball coagulation amenorrhoea was reported in 40 to 67% and satisfaction in 94 to 100%.

Comparing it with TCRE series of A.L. Magos which gives amenorrhoea rate of 27-42% and satisfaction rate of more than 80% our results are comparable with 93% satisfaction.

The two perforations occurred in our series in the first 11 cases. Now we have done more than 40 cases with no perforation, showing the effect of learning curve.

LIMITATIONS

1. Cervical stenosis - As cervix has to be dilated to No. 11 Hegars, procedure is impossible in presence of tight cervical stenosis.
2. Uterine size more than 12 weeks gravid uterus is a contraindication.
3. Submucus fibroids more than 5 cms. in diameter.
4. Adenomyosis is a relative contraindication.
5. Previous surgery on the uterus should be tackled with caution.

ADVANTAGES

1. Day procedure.
2. Low haemoglobin is no contraindication as virtually there is no intraoperative or postoperative bleeding.
3. Preferable to hysterectomy in patients

with gross obesity, diabetes, heart disease, chronic renal failure.

4. Minimal pain - comparable to that of a D and C.

5. Repeat T.C.R.E. is possible if results are not satisfactory.

6. Can be done under local analgesia and sedation.

7. Patient is less time away from work.

8. Economical.

In conclusion TCRE seems to be a genuine advance in Gynaecological surgery for treatment of menorrhagia.

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