

ENDOMETRIAL RESECTION : IS IT AN ATTRACTIVE ALTERNATIVE TO HYSTERECTOMY?

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SUMMARY

The objective of this study was to evaluate the effectiveness of TCRE in women presenting with menorrhagia. A retrospective audit of 175 patients is presented, the setting being a Charitable General Hospital, a private Endoscopy Center and Workshops. The period of this study was Oct, 1991- June 1993.

Either complete or partial TCRE was performed and results were evaluated in terms of patient satisfaction at 4 months after surgery, post-operative complications, length of hospital stay and duration of time before return to work or daily activities.

The number of procedures performed was 186 in 175 women. Major complications included perforations 5(2.8%) and primary haemorrhages requiring tamponade to control bleeding 4(2.2%). Persistent bleeding occurred in 1 (0.57%) patient who opted for hysterectomy after 13 days.

Fluid overload was suspected clinically in 15 patients (8.5%) and active treatment in 3(1.7%). Mild hyponatraemia was found in 1 patient and a large haematometra was found in 1 (0.57%) who needed hysterectomy (uterine size was 14 weeks) Follow-up was possible in 154 patients (88%) Satisfaction rate was 90.2%

INTRODUCTION

Approximately one third of the gynaecological consultations are accountable to menorrhagia and 60% of these

culminate in hysterectomy as a definitive treatment within 5 years of presentation. (Coulter et al, 1991). Medical treatment of this condition is either ineffective or poorly tolerated due to side effects which has resulted in hysterectomy becoming the

most frequently performed major surgery in women of reproductive age group. (Hill & Maher 1990).

The use of urological resectoscope to perform TCRE has been reported previously by several surgeons. (DeCherney et al 1987; Magos et al 1989; Magos et al 1991; Hill & Maher 1990) The procedure is gaining popularity in our country. It relies on the production of a type of Asherman's Syndrome within the cavity. It is ideally suited for treatment of menstrual bleeding which is excessive, rather than irregular. Surgery will reduce the amount of bleeding but will not necessarily correct the erratic pattern of metrorrhagia. This report details the results of Endometrial Resection as an alternative to hysterectomy for the treatment of abnormal uterine bleeding.

MATERIAL AND METHODS

Our study was conducted between October 1991 and June 1993, totally 175 patients were treated with TCRE (Trans Cervical Resection of Endometrium). The first author conducted several workshops all over India and the procedures in these are included. However 21 patients were lost to follow-up, Therefore the menstrual outcome and follow-up available is of 154 (88%) patients only.

Most of these patients had tried medical or some other form of treatment, without benefit, had a uterus less than or equal to 14wks., (except one). 21(12%) patients had a prior diagnostic hysteroscopy done, the rest had it done just prior to the TCRE. Pre-treatment with Danazol, 400-600mg daily for six weeks, to thin the endometrium, was possible in 11

patients (6.3%) only due to high cost. On counselling the patients it was emphasized that amenorrhoea could not be guaranteed, contraception may be required (if not sterilised), and long term efficacy was not known.

Most patients 169(96.5%) chose to undergo total resection, while partial resection was done in the remaining 6(3.5%) patients. Post-menopausal bleeding and dysmenorrhoea were not considered indications. Because the endometrium is very thin (2-3mm) shortly after menstruation, we perform TCRE between 2nd and 7th day of the cycle. Some of our patients schedule for workshops, received pre-operative progestogens to induce withdrawal bleeding, so that the patients were in immediate post-menstrual phase at the time of surgery. Since we use the continuous flow resectoscope, bleeding caused by menses rarely interfered with surgery.

The procedure we adopted was a slight modification of the one used by Magos et al (1989). General anaesthesia was used in 96(54.9%) patients. Regional Anaesthesia was given to 79(45.1%) which included spinal 72(41.1%) and local paracervical block to 7(4%). The patients were given lithotomy position with a 15° trendelenburg tilt. We used a 26Fr resectoscope fitted with a cutting loop, (roller-ball for the fundus & peri-ostial areas), a continuous irrigation and suction sheath (26 Fr gauge) and a 4mm 30° fore-oblique view Telescope (Karl storz, Tuttlingen, Germany). Passive working element was used in 115 cases while Active was used in 60 cases (34.2%).

A mixed diathermy current of 100 watts Cutting and 50 watts coagulation

was used in most cases. The uterine cavity was distended with 1.5% glycine solution at an insufflation pressure ranging from 100-120mm Hg and a suction pressure of 30-50mm Hg. the fluid balance being carefully monitored.

The complete uterine cavity was systematically resected using the cutting loop, beginning with the posterior wall, the lateral walls, and finally the anterior wall. The aim was to excise tissue to include 1-2mm of myometrium. Resected endometrial chips were removed with the Ovum grasping forceps and were sent for histopathological examination. At the end of the procedure the entire cavity was

inspected for any residual endometrial islands, which were resected, and any persistent bleeding points coagulated.

All patients received prophylactic antibiotics. Laparoscopy had to be performed in 4 patients (2.2%) who had perforations. None of them required Laparotomy, since the perforations had occurred with mechanical and not electrical instruments. Patients were discharged from the hospital as soon as they were well enough and were reviewed after 4 weeks and 4 months.

RESULTS

The mean age distribution was 15yrs.-

Table I

Menstrual Outcome and Complications after Endometrial Resection in different series

Complications	Maher&Hill 1990	Magos 1991	Pyper&Haeri 1991	Shaxted (unplished)	Present Series
No. of patients	100	250	80	274	175
Ut. Perforation %	1	2	4	2.5	2.8
Fluid overload %	-	3	0	-	1.7
Haemorrhage %	5	0.4	2.5	-	2.2
Hematometra %	2	1	-	1.5	1.9
Pregnancy %	1	1	0	0.6	0.6
Amenorrhoea %	21	27-42	6-8	59	38
Not improved %	3	8	19	9	10
Further Surgery					
TCRE %	3	7	15	-	7.1
Hysterectomy %	0	4	5	-	3.2

58yrs. (average 37 yrs.). The youngest pt. was a mentally retarded girl with heavy periods, whose parents refused hysterectomy. They gladly accepted TCRE after proper counselling. The mean time taken for surgery reduced from 63mins. in the first 50 cases to 22 mins in the last 50 cases. The average amount. of irrigant used was 5100mls, range being 3000mls-14,000mls. The mean deficit at the end of the surgery being 480mls. (210- 1800mls.). Fluid overload was suspected clinically in 15 patients (13 of who had received spinal anaesthesia) but only 3 required active treatment with Inj. Frusemide 20mg. IV and a Saline drip. All 3 of them had retained more than 1500mls. Only one of them showed mild hyponatraemia S.Na. 126mEq/lit. (Fluid retained 1650mls.) Intra -operative excessive bleeding was suspected in 4 patients (2.2%) where surgical tamponade was achieved with a Foley catheter. 1 patient (0.57%) had persistent bleeding for 13 days and she insisted on a hysterectomy. Another pt. had severe cyclical pain for three months., she had an haematometra diagnosed on USG, she too went for hysterectomy. 1 patient. conceived after 6 months., she had normal periods after TCRE, She had an MTP without complication. The average hospital stay was 21hrs. (12-48hrs.) The mean post-operative bleeding was for 8 days (range 3-21days). This was followed by an inoffensive discharge for an average of 9 days (5-26days). On histology none of the patients had malignancy. Adenomyosis was present in 14 (9%), benign hyperplasia was seen in 12 (7.8%), Remaining 128 showed normal endometrium. 59 patients (38.3%) became amenorrhoeic, 57 (37%)

had hypomenorrhoea and 23 (14.9%) had normalisation of periods, giving a satisfaction rate of 90.2%. Of the patients who were not satisfied 11 (7.1%) had a repeat TCRE done. 6 of them were satisfied with the 2nd procedure, 2 opted for a hysterectomy and 3 were lost to follow-up. Totally 5 (3.2%) of our patients had a hysterectomy in the duration of follow-up.

DISCUSSION

The concept of Endometrial destruction is not new. The intrauterine application of cytotoxic chemicals (Zipper et al 1969) and cryocautery (Droegemuelle et al 1971) were briefly reported almost 20yrs back but had unexpected complications and were unsuccessful. Recently, laser ablation of the endometrium via the hysteroscope, has been described, Several studies confirmed the efficacy of this treatment, which was first reported by Goldrath et al (1981). This seems very attractive but requires an expensive neodymiumyttrium aluminium garnet (Nd-YAG) laser unit, which is prohibitively expensive in India, does not provide a specimen for histology and seems to be slower. (Baggish and Baltoyianis 1988).

In comparison the resectoscope is less expensive and widely available in hospitals. In addition to being used to treat uncontrollable uterine haemorrhage it has been adapted for other types of intra-uterine surgery, such as removal of sub-mucous fibroids, septa and even benign mesodermal tumours through the vagina. (Neuwirth 1978; Haning et al 1980; DeCherney 1987).

It has been shown that healthy women with heavy, prolonged, or frequent periods may also be candidates for this type of operation as an alternative to hysterectomy,

the endometrium being completely or partially excised with a cutting diathermy loop. There was a consistent and considerable reduction in the duration of menstrual bleeding, the amount of flow per cycle, and period pains, in over half the women after total resection. (Magos et al 1989)

In 1985, 18600 hysterectomies were performed in England for menstrual disorders. (Magos et al 1989), with a recent audit from the United Kingdom suggesting that no abnormality is found in over half of such specimens (Grant and Hussein 1984). In India the numbers could be ten times more. Although the mortality after hysterectomy for benign disorders has been reported as only 6.0 per 10,000 (Wingo et al 1985), the short term morbidity rate in one large series was as high as 24.5 and 42.8 per 100 for Vaginal and Abdominal hysterectomies respectively (Dicker et al 1982). At least as worrying are the potential long term effects of hysterectomy, including premature ovarian failure (Siddle et al 1987), increased risk of cardiovascular disease (Centerwall 1981) and possibly psycho-sexual dysfunction (Richards 1974). These statistics and the financial and social implications of a less major operation seem to make endometrial destruction, whether by electrocautery or laser, an attractive alternative to hysterectomy and arguably even to long term drug treatment in women who have completed their families.

We had to improvise considerably in our set-up and used several modifications to the standard technique utilised by various workers. We used general anaesthesia in 54.9% of our cases early in the series, however we preferred spinal anaesthesia

(41.1%) and now use it more frequently, because the clinical symptoms and signs of fluid overload can be detected much earlier. In contrast Hill & Maher (1990) used general anaesthesia in 100% of their cases. Mogos et al (1989 and 1991) did not use general anaesthesia as it makes the early symptoms (restlessness, headache, confusion, nausea and retching) impossible to recognise and the onset of cyanosis is delayed by virtue of the increased inspired oxygen concentration and controlled ventilation. The only warning sign may be small changes in pulse rate and arterial hypertension. (Charlton 1980).

We are convinced that Danazol preparation is not absolutely necessary for good results. If the surgery can be scheduled between 2nd and 7th day of the cycle, it would save the patient the expense as well as the unpleasant side-effects. Our complication rates were comparable to those of other workers, so also were the amenorrhoea & satisfaction rates. (Table I).

The procedure is safe with a low complication rate but adequate training is necessary. Extensive experience with diagnostic hysteroscopy is essential before operative hysteroscopy is attempted. It is difficult to guarantee amenorrhoea; and therefore no assurance to this effect must be given. Indeed it is apparent with a few patients that they would not be satisfied with anything but complete cessation of menses, and in this situation, hysterectomy is a better form of treatment.

CONCLUSION

TCRE now has been shown to be highly effective treatment for menorrhagia, by several investigators. Amenorrhoea should

not be the goal-rather, the procedure should be offered to reduce menstrual loss, significantly, thus allowing women to lead normal social lives and avoid major surgery.

The medium and long term effects and morbidity are as yet unknown. Only careful long term monitoring of patients undergoing these new techniques will truly address the question of safety and efficacy.

ACKNOWLEDGEMENTS

We are extremely grateful to Mr. Pradip Ajmera of Ajmera Biomedical Engineers, Bombay, and Frau Sybill Storz-Reling of Karl Storz GmbH, Tuttlingen, West Germany, for loan of the Hysteromat & other instruments for Endometrial Resections.

We also thank Dr. H.L. Chulani, Medical Director- Radhibai Watumull Ch. Hospital and Dr. Rane (MEDIGRAD) for their support, and various Sponsors of Workshops all over India.