

SCAR ENDOMETRIOSIS FOLLOWING SURGICAL TERMINATION OF MID-TRIMESTER PREGNANCY

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SUMMARY

Thirty-four cases of scar endometriosis occurred during a 6 year period (from 1976 to 1981) at the Government Hospital for Women and Children, Egmore, Madras, South India giving an incidence of 1.8% out of the total gynaecological admissions. Twenty-five cases occurred following hysterotomy with sterilisation as a procedure for mid-trimester abortion thus giving an incidence of 1.1%. Out of the remaining 9 cases, 4 occurred following lower segment caesarean section, 4 following suction and transabdominal tubectomy and one following puerperal sterilisation.

Introduction

Scar Endometriosis is thought to be a rare condition, but the present study showed it as not so rare and seems to be more common following Hysterotomy. Scar endometriosis is defined as the presence of actively functioning endometrium in the scar of the previous laparotomy.

Thirty-four cases of scar endometriosis occurred during six years period (from 1976 to 1981) in Government Hospital for Women and Children, Egmore, Madras, South India, were analysed. Twenty-five cases were following hysterotomy with sterilisation for mid-trimester abortion. Modification of the method in order to re-

duce the incidence of Scar Endometriosis is discussed as this surgical method cannot be completely replaced by other sophisticated method especially in a developing country like ours.

Material and Methods

Thirty four cases of scar endometriosis were analysed with the view to replace surgical termination of mid-trimester abortion as 73% of scar endometriosis occurred following hysterotomy. Total number of mid-trimester abortions during the same period is 5,033, out of which 48% were terminated surgically. 2,332 cases were selected for hysterotomy with sterilisation straight away and 129 cases were resorted to hysterotomy for failed cases following non-surgical methods.

The incidence of endometriosis in our hospital is 1.8% out of total gynaecologi-

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cal admissions for 6 years (541 out of 30,016). The incidence of scar endometriosis as such is 0.1% (34 out of 30,016). 6.3% of endometriosis is in the scar. Out of the 34 cases of scar endometriosis, 25 were following hysterotomy and the rest following caesarean section, abdominal sterilisation following suction-evacuation, puerperal sterilisation (Table I). The incidence of scar endometriosis following hysterotomy is 1.1% (25 out of 2322); 73% of scar endometriosis followed hysterotomy (Table II).

TABLE I

Incidence of Scar Endometriosis Following Various Types of Operations

Total number of cases	34
Following Hysterotomy	25
Following lower segment Caesarean Section	4
Following suction and trans-abdominal tubectomy	4
Following puerperal sterilisation	1

TABLE II

Total number of gynaec admissions during the six year period (1976-1981)	30,016
Total number of Endometriosis	541
Scar Endometriosis	2,322
Hysterotomy operation	34
Scar Endometriosis following Hysterotomy	25

Fifty-five per cent of cases were in the age group 21-30 years, and the rest between 31-40 years. 82% of the scar endometriosis occurred between paras II to IV. (Table III).

Time interval between the previous laparotomy and the reporting of patients with symptoms of scar endometriosis was 1 to 3 years (67%) (Table IV).

TABLE IV

Time Interval Between the Operation and the Onsets of Symptoms of Scar Endometriosis

Time interval	No. of cases
1-2 years	13
3 years	10
4 years	7
5 year	3
6 years	1

Pattern of presentation being as a nodule in all the cases varying from 2 to 6 cms. in diameters, 26 cases complained of pain with the nodule, 5 cases only as nodule and 3 cases with cyclical discharge from the nodule, site of the nodule is invariably lower 1/3rd of the scar (Table V).

TABLE III

Incidence of Scar Edometriosis in Relations to Age and Parity

Age	No. of cases	Parity	No. of cases
21-25	7	Primi	1
26-30	12	II to IV	28
31-35	8	V to VII	5
36-40	7		

TABLE V

Site of the Nodule	No. of cases
Lower 1/3 of the scar	18
Middle 1/3 of the scar	2
Upper 1/3 of the scar	5
Not recorded	9

Anatomical layers involved being rectus sheath and the muscle. Peritoneum was involved less commonly (Table VI).

TABLE VI
Anatomical Site of Scar Endometriosis

Subcutaneous	1
Rectus Sheath	8
Rectus Muscle	4
Involving Peritoneum	4
Not operated	10

Surgical excision was done with or without hysterectomy in 24 cases, only hormonal treatment in 4 cases and the rest of the cases not treated as patients got discharged.

Discussion

Liu (1973) observed that abdominal hysterotomy may be required for mid-trimester abortions, where more sophisticated methods fail, states that the operation carries more risk of wound implantation and he also advocates progestogens for 4 to 5 months post-operatively in these cases where there is no contraindications for using hormones.

Scott, Te-Linde (1954), Ridley and Edwards (1958) were able to confirm the ability of the endometrium to grow after an interval ranging from 2-½ months to 2-½ years when implanted. This was further confirmed by Hughesdon (1958), Goswami and Balusu (1981) reported 8 cases of scar endometriosis during 6 year period (1972-77), whereas it has gone upto 25

cases in one year (1980) mainly because of the increased incidence of hysterotomies and the high incidence is mainly iatrogenic.

In our series of 34 cases, 25 were following hysterotomy with sterilisation. None of the cases had associated pelvic endometriosis. Total number of mid-trimester abortions was 5033 out of which 2461 cases terminated surgically and 2701 cases terminated medically. The drugs used were Prostaglandin, Intrauterine Saline and Rivanol.

Hysterotomy with concurrent sterilisation is done in our hospital mainly because of the non-availability of drugs like prostaglandin, Rivanol etc. and also in those cases which failed after medical line of termination. In our series, 129 cases out of 2701 cases failed and resorted to hysterotomy with sterilisation. Thus, replacing this surgical method completely by medical method is not feasible not only because of the lack of facilities and inherent complication of the drugs but also mainly as not to lose these patients without undergoing sterilisation in which case we fail in our fertility control. At this junction only we have come to a conclusion of modifying the method of hysterotomy as well as taking preventive measures prophylactically for scar endometriosis, modifications suggested are to do only lower segment hysterotomy. The difficulty faced in this method is not in the location of the lower segment, in a mid-trimester pregnant uterus, as the lower most part of the body of uterus immediately adjacent to the internal os is taken as the future lower segment, but the space is narrow, highly vascular and very thick and to be opened by vertical incision. The placenta and the embryo after being separated digitally can be sucked out with the help of suction curette and wound can

be peritonised. Other accessory steps like complete eventration of uterus, whenever possible, avoiding the spill of endometrium, and protecting the wound edges carefully can be adopted in addition.

Another measure is prophylactic progestogens therapy for a minimum period of first 6 months at it has been proved experimentally it takes minimum 2½ months to 2½ years for the implanted endometrium to grow. We also advocate a close follow up for 1 year. We have no experience how far these hormones can help preventing scar endometriosis as it is very difficult for the hormone to reach the endometrial implants in the midst of fibrous tissues. Cases are reported that hormones are of no value in the treatment of established cases of scar endometriosis.

The low incidence of scar endometriosis following caesarean section (4 out of 8764) 0.05% proves the theory that the term pregnant endometrium is difficult to act as a stimulus if it gets implanted compared to mid-trimester endometrium which is a powerful stimulus at the site of implantation.

All the cases were proved histologically. The picture is invariably endometrial

glands in varying phases of endometrial cycle surrounded by stroma, completely, and with dense fibrous tissue matrix with the presence of macrophages.

Best line of treatment being surgical excision with hysterectomy wherever indicated. Twenty-four cases were treated surgically and not a single case reported with recurrence. The 4 cases treated hormonally have no follow up.

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