

UTERINE ANOMALIES IN RECURRENT ABORTIONS

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SUMMARY

The uterine abnormalities which can lead to recurrent abortions are submucous fibroids, intra uterine synechiae, incompetent Cervical os and congenital uterine anomalies such as bicornuate or subseptate uterus. Hysterosalpingography was done in 53 cases of recurrent abortions. 26 had normal findings and of the remaining 27 abnormal hysterosalpingograms, 5 had evidence of incompetent os, 5 showed findings suggestive of intra-uterine synechiae, 3 had a submucous fibroid and 14 had congenital uterine anomalies. Of these 14 cases, 6 had a septate uterus, 4 had a bicornuate uterus, 3 had an arcuate uterus and 1 had a hypoplastic uterus. All these cases were appropriately managed with surgery or by conservative methods. 7 cases were selected for metroplasty. 4 had the modified Jones' procedure and 3 had the Strassman's operation. 5 of these 7 operated patients subsequently delivered a full term infant. Cases with intra uterine synechiae were managed by a D and C, IUCD insertion, antibiotics and cyclic hormones. Of these 5 cases, 2 conceived subsequently. Cases with incompetent os had a cervical cerclage done. No myomectomy was performed in this series.

Introduction

Cases of Recurrent Abortions need to be investigated to exclude all possible causative factors such as systemic diseases, infections, hormonal deficiencies as well as uterine abnormalities. The uterine abnormalities which can lead to abortions are submucous fibroids, intra uterine synechiae, incompetent cervical os and congenital uterine anomalies such as bicornuate or subseptate uterus. Over a three year study period of 900 cases of pregnancy wastage, 250 had recurrent

abortions. After excluding other factors hysterosalpingography was carried out in 53 cases. Of these 26 had normal findings and 27 had abnormal hysterosalpingograms. Of all the uterine abnormalities incompetent cervical os is one of the most common causes of pregnancy wastage. Apart from hystercervicography done in the non-pregnant stage, it can be diagnosed by a thorough clinical examination during pregnancy. But hysterosalpingography is certainly essential to detect the other uterine abnormalities.

Material and Methods

Patients with history of pregnancy wastage were investigated systematically in the High Risk Pregnancy Clinic at

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the K.E.M. Hospital. Hysterosalpingography was carried out in selected cases where all other factors of pregnancy wastage were excluded and there were three or more consecutive fetal losses in the first and second trimesters. The procedure was done postmenstrually, at least three months after the last fetal loss. Cases with vaginal and cervical infections were treated prior to the procedure and all patients were covered by antibiotics prophylactically. Water Soluble Medium was used with fluoroscopic control. Two films were taken to visualise the uterine cavity and the cervical canal. The hysterosalpingograms were interpreted by the radiologist as well as the gynaecologists with special emphasis on the configuration of the uterine cavity, the continuity of its lining and the cervical os. All the pictures were satisfactory for interpretation. Of the seven patients for whom metroplasty was performed, five could be followed up during the next pregnancy till delivery. Cases of incompetent os were suitably treated.

Results

Of the 53 cases, 26 had normal hysterosalpingograms, 5 had evidence of incompetent os, 5 showed filling defects and irregularity of the lining due to intra uterine synechiae. There were 3 cases where the hysterosalpingogram indicated presence of a submucous fibroid or a large polyp. Of the 14 cases with congenital uterine anomalies, 6 had septate uterus, 4 had bicornuate uterus, 3 had arcuate uterus and 1 had a hypoplastic uterus (Table I).

Patients were selected for surgery with great care. Patients where the pregnancy loss occurred at a later period of gestation during consecutive pregnancies were managed conservatively with bed rest,

TABLE I
Abnormal Hysterosalpingograms

| Diagnosis | No. of cases |
|------------------------------|--------------|
| Incompetent Cervical os | 5 |
| Intrauterine Synechiae | 5 |
| Submucous Fibroid | 3 |
| Congenital Uterine Anomalies | (14) |
| Septate Uterus | 6 |
| Bicornuate Uterus | 4 |
| Arcuate Uterus | 3 |
| Hypoplastic Uterus | 1 |
| | 27 |

tocolytics and progestogens. Cases with arcuate and hypoplastic uterus were of course conservatively managed.

Four cases of septate uterus had a wedge resection of the septum by modified Jone's procedure. The septum was excised in a wedge with an anterior—posterior incision on each side of the midline until the endometrial cavity was reached. This was sutured antero—posteriorly, in two layers with absorbable sutures to form a single uterine cavity. Care was taken to avoid any trauma to the Fallopian tube especially to interstitial end. Three of these patients conceived during the following one year and all were delivered by an elective Cesarean Section at term. The three cases of bicornuate uterus had a Strassman's metroplasty. The medial side of the uterine corpus was incised in the longitudinal axis to expose the uterine cavities. The myometrium was reapproximated anteroposteriorly. Two of these patients conceived within eighteen months after surgery and were delivered at term by an elective Cesarean Section. A close watch was kept for cervical incompetence in all operated cases. Two of them required cervical cerclage at 20 and 24 weeks of gestation respectively.

Intrauterine synechiae were diagnosed

in 5 cases by hysterosalpingography. The synechiae ranged from type 1 to type 3. As there was no facility to carry out operative hysteroscopy, a dilatation and curettage was done, followed by insertion of an IUCD, antibiotics and cyclical estrogens and progestogens. Of the 2 patients who conceived, one went to full term and the other aborted at 12 weeks once again.

Myomectomy was not carried out in any of the patients with submucous fibroid. One of the patients who followed up with us, conceived and delivered a viable infant at 35 weeks of gestation. Another patient who had 5 abortions in the mid trimester is now 10 weeks pregnant. She did not come for an interval myomectomy as advised.

Discussion

Hysterosalpingography still remains a very useful tool for the diagnosis of uterine anomalies as the availability and expertise of hysteroscopy is still limited. Although we used an aqueous dye, a viscous dye improves the delineation of the configuration of the uterine cavity and the continuity of the lining is better visu-

alised. To visualise the internal cervical os, for the purpose of diagnosis of incompetent os, it is necessary to use a Malmstrom's cannula or a special Japanese cannula whose tip enters only half an inch into the cervical canal and its two transverse bars obliterate the external os of the cervix. Laparoscopy is essential to distinguish septate and bicornuate uterus and intravenous pyelography will help to diagnose associated renal anomalies in some of the cases.

It is difficult to determine the exact incidence of congenital uterine malformations as many cases remain undiscovered clinically or are incidental findings during delivery, at laparotomy or autopsy. In these cases the obstetric performance could be normal or there may be a higher incidence of malpresentations. In this study the incidence of mullerian duct anomalies seems high only because these cases are highly selected having consecutive recurrent fetal losses after exclusion of other causative factors. The approach to the management of congenital uterine anomalies should be judicious and conservative, as metroplasty can cause distortion of the endometrial cavity, and the Fallopian tube including its

TABLE II
Results Following Metroplasty

| Author | Year | No. of Cases | Fetal Salvage Rate | |
|------------------------------------|------|--------------|--------------------|----------|
| | | | Pre-Op. | Post-Op. |
| 1. Capraro V. J. <i>et al</i> | 1968 | 14 | 21% | 82% |
| 2. Jones H. W. <i>et al</i> | 1969 | 22 | 1% | 70% |
| 3. Buttram C. C. and Gibbons W. S. | 1974 | 28 | 19.5% | 87.5% |
| 4. Rock J. A. and Jones Jr. H. W. | 1977 | 43 | 3% | 70% |
| 5. Musich Jr. and Behram S. J. | 1978 | 21 | 7% | 75% |
| 6. Kushda M. | 1982 | 32 | 0% | 92.6% |
| 7. McShane P. M. <i>et al</i> | 1983 | 18 | 0% | 71% |
| 8. Present Series | 1988 | 7 | 0% | 71.4% |

interstitial end. It may also cause peritubal adhesions. It does leave a vertical scar on the uterus and may lead to incompetent cervical os at times, which needs close observation during pregnancy. A number of authors have demonstrated improved fetal salvage after metroplasty (Table II).

The incidence of intrauterine synechiae is increasing due to an increased incidence of terminations of pregnancy by suction evacuation, and repeated D and C's for infertility investigations. This may lead to trauma, inflammation and fibrosis varying from thin membranous adhesions to thick fibrous strands obliterating the uterine cavity. These prevent proper nidation and fetal growth causing abortion or preterm delivery. It is therefore necessary to increase the awareness of this problem and prevent the same by taking adequate care for asepsis and avoiding over indulgent curettage.

In determining the management of cases of submucous fibroids, the size and location of the fibroid and the details of

the gynaecological history are important factors. All cases of uterine anomalies. Whether conservatively or surgically treated require close monitoring in every pregnancy to ensure a successful outcome.

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