

CONSTRUCTION OF ARTIFICIAL VAGINA BY THE
DAVIDOV TECHNIQUE

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SUMMARY

The results of vaginoplasty in ten patients using the Davidov technique have been reported. Nine patients had the procedure performed for the first time. One patient had a previous vaginoplasty, (technique). Post-operative morbidity was minimal and the long term results good. Further advantages of the technique have been discussed.

INTRODUCTION

Many operative techniques have been revised for the management of the patient with congenital absence of the vagina. These have been summarised in Table I.

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TABLE I

| Technique | Procedure and Specification | Disadvantages |
|-------------------------------|---|---|
| Frank | Dilatation of Sinus urogenitalis with Bougies | a) results are much delayed b) vaginal-length cannot be achieved more than 7 cm. |
| Wharton | Dilatation of Sinus urogenitalis surgically | Regime: Twice daily use day of Prothesis |
| Thiersch | Vaginoplasty with Epidermis | a) Rejection of tissue. b) Keloid formation and pigmentation |
| Kirschner Wager McIndoe | Vaginoplasty with Epidermis and mould | as above |
| Brindeau and Burger | Vaginoplasty with Amnion | Technically difficult to handle amnion |
| Bloch | Vaginoplasty with peritoneum by abdomino-perineal approach | a) major operation b) difficulty of bringing down the peritoneum c) shortening of Lig. Latum. |
| Baldwin-Mori | Vaginoplasty with loop of ileum | a) Vaginal discharge b) High mortality |
| Schubert | Vaginoplasty with low segment of rectum | as above |
| Runge-Schmid | Vaginoplasty with Sigmoid-segment | as above |
| Williams | Vulvo-vaginoplasty | NIL |
| Davidov | Abdomino-perineal approach with peritoneum of Douglas Pouch | NIL |

Anglo-american gynaecologists favour either the William's vulvo-vaginoplasty (Williams, 1964) or the McIndoe-Read operation (McIndoe and Banister, 1938), (Feroze & Dewhurst 1975). The Davidov technique (Friedberg, 1974) is used by a number of centres on the continent.

We have previously reported a comparison between the Davidov and Wharton techniques in twenty patients (Azhar, 1976). Better results were noted using the Davidov technique.

The results of vaginoplasty using the Davidov technique in ten patients are therefore presented.

PATIENTS AND METHOD

All the patients in the series were from the province of Azarbayjan in the North of Iran. Ages ranged from 17-20 years in nine patients. One patient was aged 34 years but had a previous vaginoplasty carried out 10 years ago. All patients were married and presented to the gynaecology clinic with primary amenorrhoea, infertility and dyspareunia, libido was normal in all patients,

Examination revealed a normal female habitus with full breast and pubic hair development. Ovulation was confirmed by basal body temperature graphs. In all patients the only sign of a vaginal was a small depression, 1.5-2cms. deep.

At laparotomy the absence of a uterus was confirmed and rudimentary uterine horns were removed. Normal ovaries showing microscopic evidence of function were noted.

TECHNIQUE

The Davidov technique (Davidov SN 1969) has been shown diagrammatically in Figure 1).

Phase I: (vaginally).

Surgical dilatation of sinus urogenitalis bore digitally and by sharp dissection.

Phase II: (laparotomy)

Removal of uterine horns.

Opening of Pouch of Douglas

Phase III:

The peritoneum walls both anterior and posterior of the Pouch of Douglas are brought down through the potential vaginal lumen.

Phase IV:

The peritoneum at apex of vaginal lumen is closed using interrupted catgut sutures.

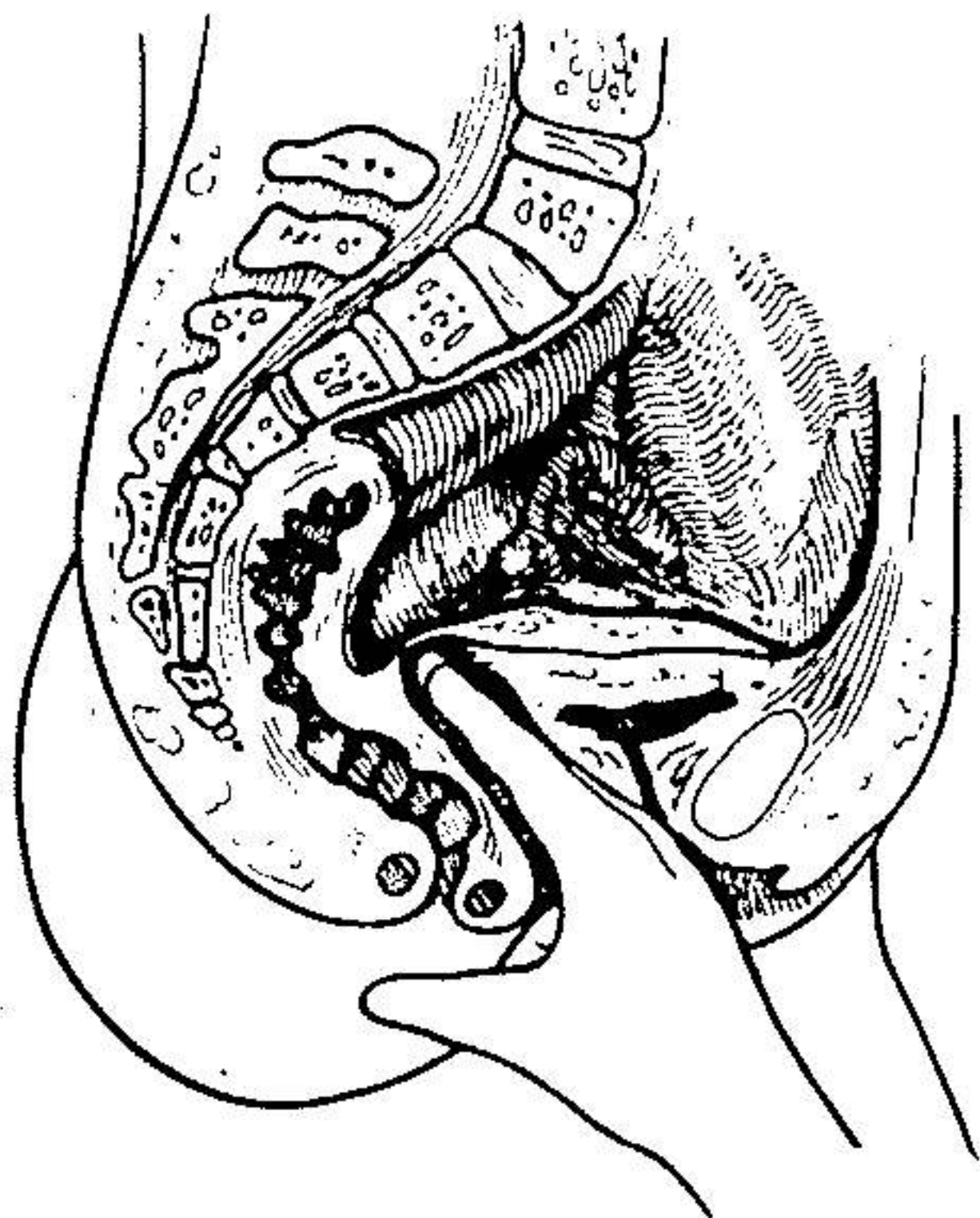
Post-operative care consists of instillation of oestrogen cream daily for 7 days.

No pack is required. The bladder is catheterized for 3 days post-operatively. The number of days in hospital was 10-14 days.

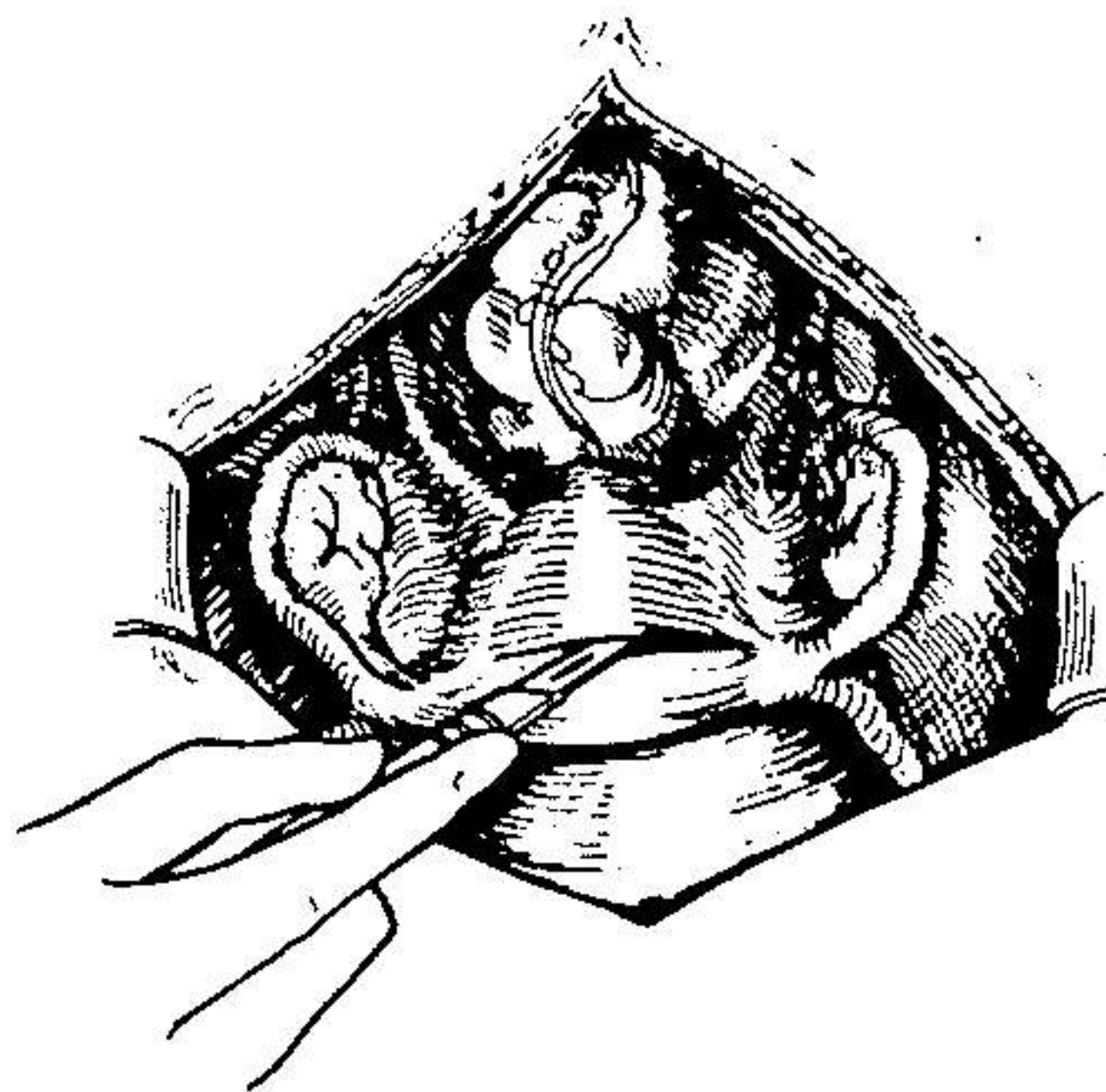
RESULTS

Post-operatively patients were reviewed at 6 weeks, 6 months and one year.

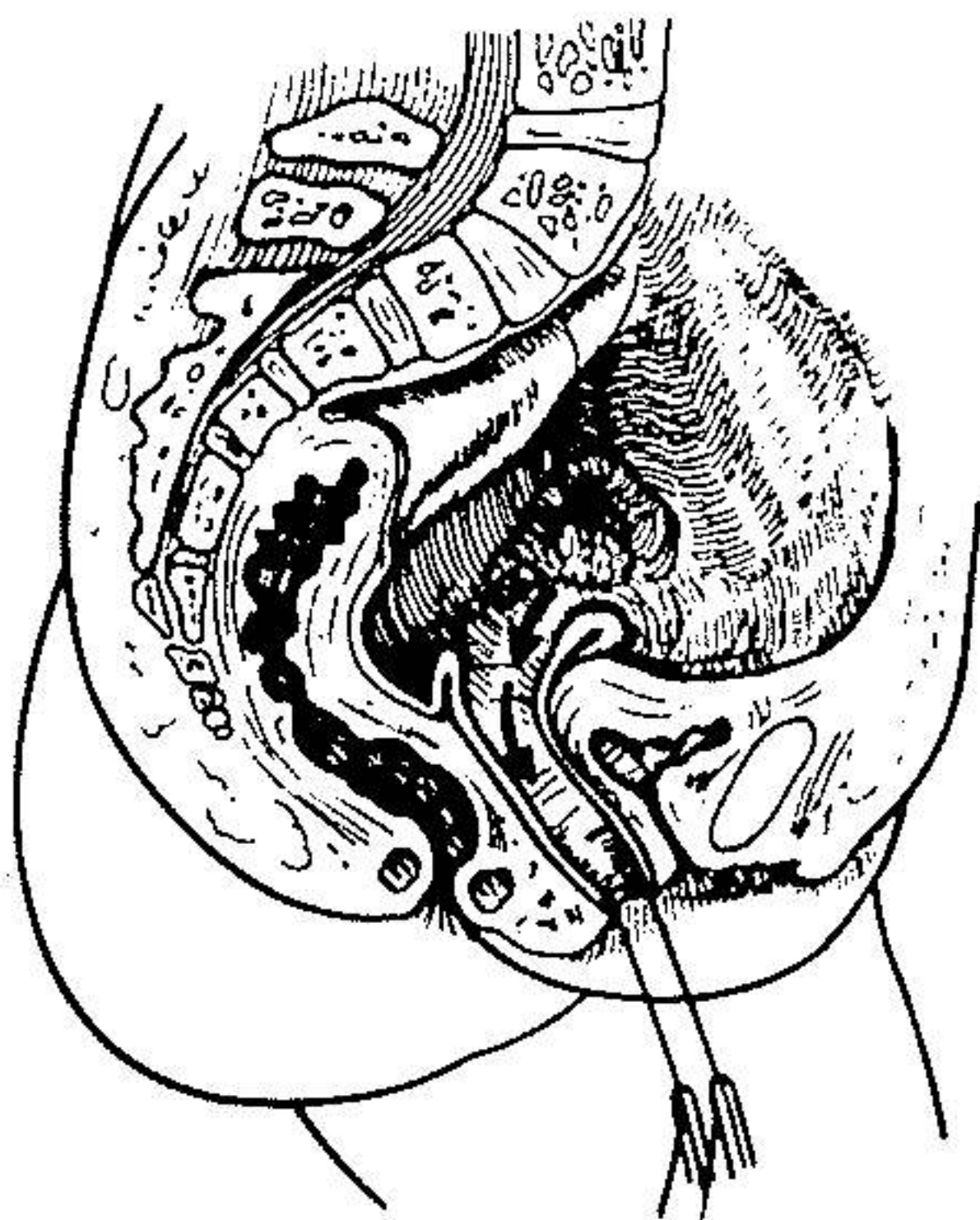
They have been summarized in Table II.



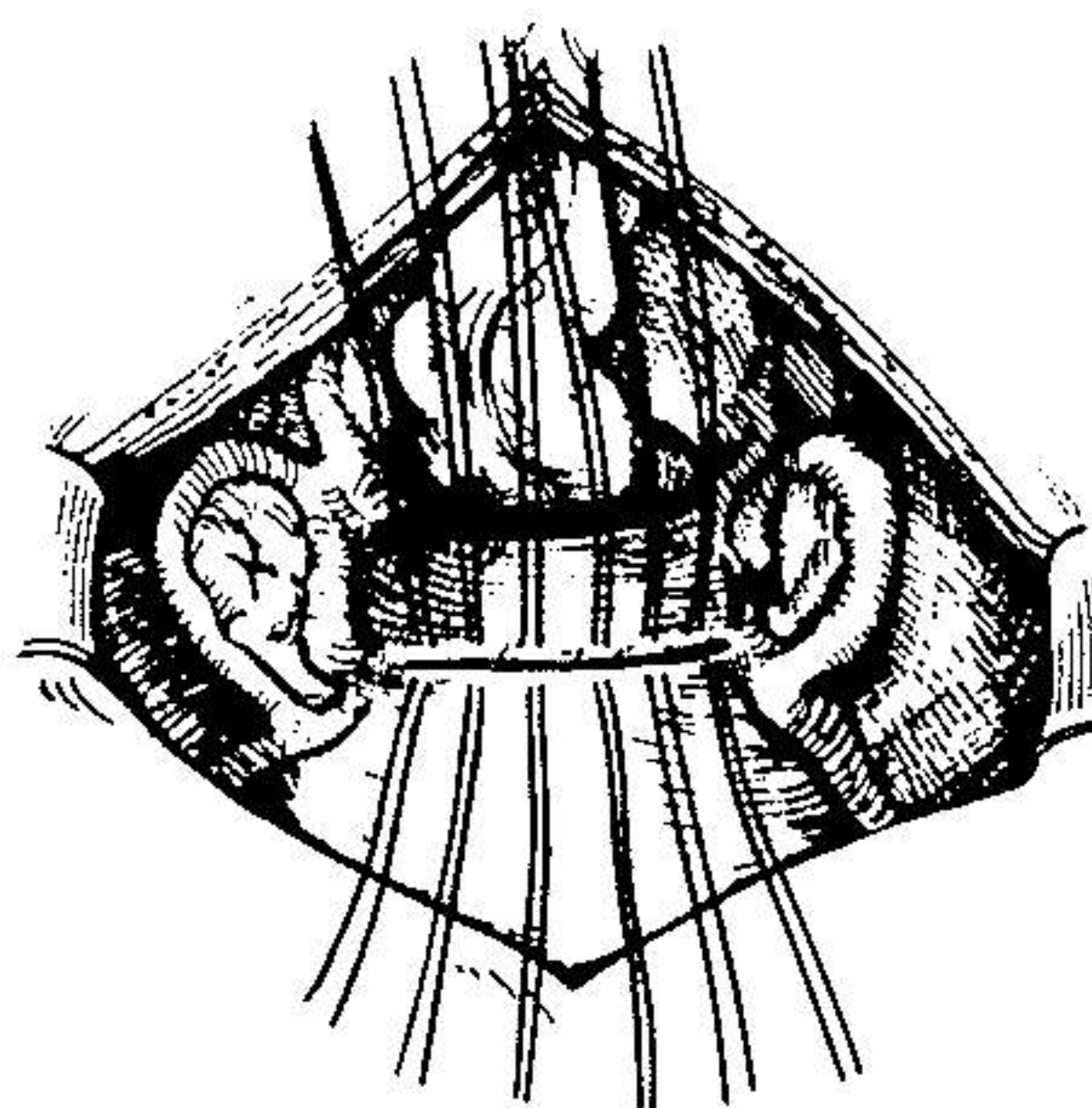
Construction of the vaginal lumen



Opening the peritoneum above the vaginal lumen



Peritoneal delivery in the vagina



Peritoneal suture

TABLE II

RESULTS OF DAVIDOV TECHNIQUE

| Total No of patients | Anatomical | | | | Coitus | |
|---|----------------|-----------------------------|-----------------|------------|---------------------|-------------------------|
| | <u>6 weeks</u> | | <u>6 months</u> | | <u>1 year</u> | |
| | <u>Good</u> | <u>Bad</u> | <u>Good</u> | <u>Bad</u> | <u>Satisfactory</u> | <u>Not Satisfactory</u> |
| Primary operation for vaginal absence | 9 | 8 | 1* | 8** | - | - |
| Secondary operation for vaginal absence | 1 | Reduced -- to 2-3 cms | - | - | - | - |

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* One patient did not report for follow up

**Resultant vaginal length in one patient was 9 cms. but the introitus was narrowed.

DISCUSSION

The availability of numerous techniques to correct the absent vagina implies that an ideal operation does not exist. Factors which should be taken into account in the assessment of a surgical procedure include simplicity of the technique, length of hospitalization, post-operative morbidity and ultimate results.

The small series presented illustrates the excellent results obtained using the Davidov vaginoplasty. The technique is relatively simple and the period of hospitalization is short (mean 10 days: range 7-14 days).

Post-operative complications were rare; one patient developed a subcutaneous abscess following her second vaginoplasty.

Graft rejection was never a problem and in particular epithelialization of the vaginal lumen was quick, intercourse occurring satisfactorily 4 weeks post-operatively.

One of the inconvenient side effects of other methods includes discharge and irritation of the clitoris during intercourse. This was not a reported problem using the technique described. Finally satisfactory coitus was achieved, all patients excluding the one who had a repeat vaginoplasty. Interestingly vaginal stenosis did not occur even if coitus was not resumed on a regular basis post-operatively.

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