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SOME OBSERVATION ON VAGINAL APLASIA

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The Rokitansky-Kuster-Hauser syndrome, commonly known as vaginal aplasia is a common congenital amomaly affecting the females, and its incidence has been reported to vary from 1:4000 to 1:5000 live female births. It was first reported by Realdus Columbus in 1572. In majority of cases the patient is brought to the doctor because of primary amenorrhoea. The secondary sexual characters in these cases are invariably developed normally. Telinde (1962) stated, 'In our personal experience we have never seen a woman with a congenital absence of vagina, who was not typically feminine physically'.

The surgical correction of this condition has continued to be a challenge to surgeons and gynaecologists alike. Skin flaps from the labia and the neighbouring areas were used by Jewelt (1904) and this technique was further developed by Graves (1908) who used two thigh flaps and two labial flaps over a glass mould for vaginal reconstruction.

Portions of the gastrointestinal tract were used for vaginal reconstruction by various workers. Sueguiraff (1892) Schubert (1914) and Conway and Stark (1953) used the rectum, Baldwin (1904) transplanted a loop of small intestine, and Popoff (1910) used the rectosigmoid for this purpose. Unfortunately these procedures were associated with significant morbidity and mortality and complicated by disagreeable mucosal secretions.

Frank and Giest (1927) succeeded in producing a vagina by non operative technique using intermittent pressure by a mould. Simple reconstructive procedures by tunnelling by blunt dissection and then allowing epithelial buds to proliferate and line the new vagina were popularised by wells and Kanter (1935) and Wharton (1938).

However the safest and the most practical method for vaginal reconstruction has been by the inlay skin graft technique. First described by Abbe (1898), it was further popularised by McIndoe (1937, 1950) and perfected by Councellor (1948) and therefore the operation may rightly be called the Abbe-McIndoe Councellor operation, This has been used by numerous surgeons throughout the world with exeellent results. With the improvement in the techniques of grafting and use of better mould, the incidence of bleeding, maceration, necrosis and ulceration have been considerably decreased and the complication of perforation of rectum, and bladder almost eliminated.

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A variety of moulds have been used over the years for vaginal reconstruction. Most of the moulds are hard and rigid, uncomfortable to wear for long periods and run the risk of pressure necrosis of the neighbouring organs. The common moulds in use are made of metal, dental compound, acrylic, pyrexglass, and steel. In the present series we have used a soft mould improvised by paking a rubber condom with cotton wool. In this paper we wish to describe our experiences with this technique.

Material and Methods

This paper is based on our observations in 24 cases of congenital vaginal atresia who were admitted to the Hospital of Institute of Medical Sciences between January 1970 and December 1978. The ages of these patients ranged between 17 to 26 years. Nineteen were married, four unmarried and one divorced. All of them had primary amenorrhoea and had been reffered for expert treatment. The secondary sexual characters in all these cases were developed normally. In two of these cases the uterus and cervix were reasonably well developed and the vagina was represented by a blind pouch 3 cm. deep.

All the cases were operated under general or spinal anaesthesia and reconstruction was done by the McIndoe's technique. The vaginal mould was prepared by packing an ordinary condom with a piece of rolled cotton and tying it at the end. (Fig. 1) The size of the mould was abont 8 to 10 cm. in length and 4 to 5 cm in diameter. A thick split thickness skin graft taken from the thigh was then wrapped round the mould with the raw surface outward and then sutured in position. After preparing the vaginal cavity by sharp and blunt dissection and obtaining complete haemostasis. The skin covered mould was placed in position and the two labia were then sutured over is to prevent displacement. (Fig. 2) An indwelling urethral catheter was invariably placed in position. The mould was removed after ten days and the cavity inspected for the take of the graft. The patients were taught how to prepare mould and advised to wear it day and night for six months. Married patients were permitted sexual intercoure after three months.

In the present study the take of the graft was excellent in 22 cases, and satisfactory in two cases. In one case regrafting was necessary. At follow up after varying intervals from six months to two years, it was observed that the size of the vagina was excellent in 22 cases. In two cases, who did not use the vaginal mould regularly developed vaginal stenosis. In the sixteen cases who were sexually active, two complained of dyspareumia. There were no serious complications in the form of pressure necrosis or fistulae into neighbouring organs. The patient were quite comfortable in using the soft vaginal mould for long periods. (Fig. 3)

Discussion

Congenital vaginal atresia is quite a common congenital anomaly usually diagnosed at puberty due to failure of the girl to menstruate. The main indication for vaginal reconstruction is to enable the patient to lead a normal sexual life. The operation should preferably be performed a few months before marriage. There may be some patients who may demand the operation at an earlier period. There is no harm in doing it earlier provided the patient is intelligent and co-operative and can follow instructions properly.

There is some controversy as to the type of mould to be used. In the present series we have used a simple mould prepared by packing a

rubber condom with a piece of rolled cotton. The main advantages of this mould are its easy availability, softness with minimal risk of pressure necrosis, comfort in wearing for long periods, and the possibility to adjust the size according to the needs of the patient. None of the patients who used it for long periods complained of any significant discomfort. We do not favour a hard mould because of the risk of pressure necrosis, and incovenience when used for long periods. Althongh numerous operative techniques using a variety of moulds have been described in the literature, the results obtained by the Abbe-McIndoe-Councellor Operation using a soft mould have been excellent in this series. The complications of bleeding, maceration, necrosis and ulceration have been markedly reduced and the more serious camplications of perforation of the rectnm bladder, and urethra virtually eliminated.

Summary

In the present paper the authors describe their experiences in vaginal reconstruction by the McIndoe technique. They advocate a soft mould made of a rubber condom packed with rolled cotton. The advantage claimed are its easy availability, minimal risk of pressure necrosis and comfort in wearing for long periods.

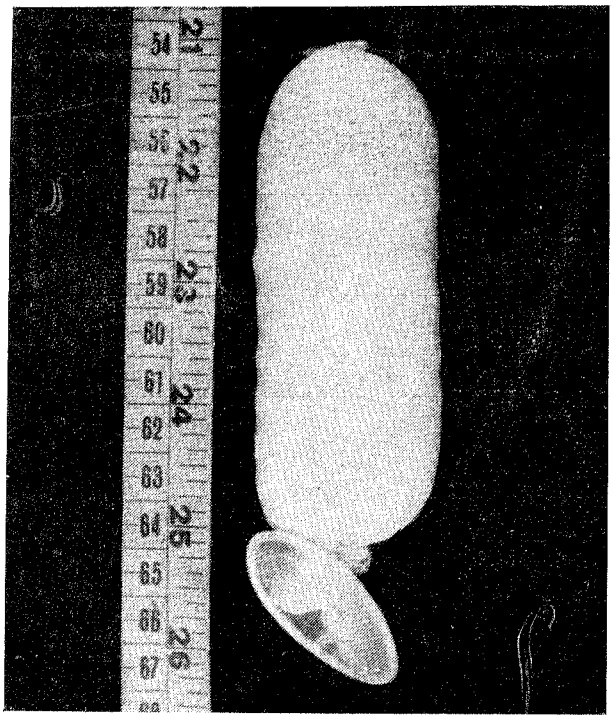

Fig. 1 The mould used for vaginoplasty.

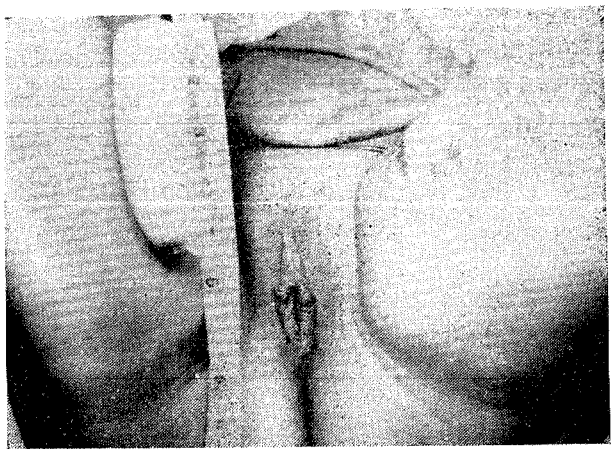

Fig. 2 The mould before insertion.

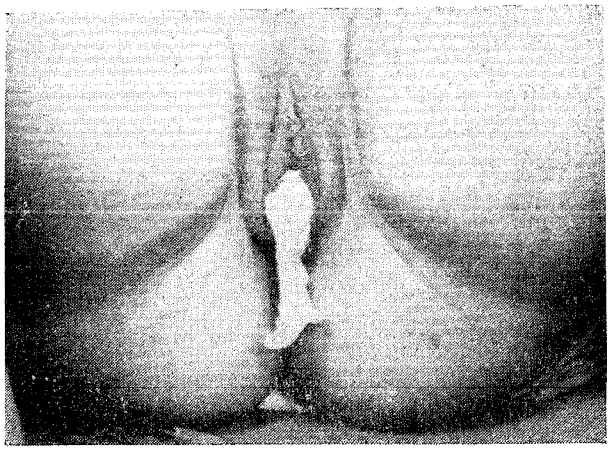

Fig. 3 The mould in position.

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