RECONSTRUCTION OF VAGINA IN CASES OF VAGINAL AGENESIS WITH NORMAL UTERUS

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Introduction

Congenital ageneies of the vagina occurs, about 1 : 4000 (Herbert Conway & Richard B. Stark, 1953) births. Embryologically, agencies of the vagina is due to failure of the utero-vaginal process to progress from the solid to the hollow form. The agencies of the vagina was first described by Realdus Columbus in 1573. The reconsutrction is done in patients who are married or intending to marry. It is also performed in cases of the functioning uterus. Various methods were described for the reconstruction of the vagina in the agencies of uterus and its adenexa by various authors, which are as follows :

(*a*) A free graft from skin, mucosa of fetal membrane.

(*b*) Pedicles of skin and subcutaneous tissue taken from the thigh.

(*c*) The insertion of obturators (made of sponge, balsa wood, glass, rubber, bakelite, metal with or without coverage of graft.

(*d*) Pedicle of ileum, sigmoid colon or rectum.

The aim of this article is to report 3 cases in whom there was functional uterus associated with congenital non-canalisation of the vagina. The operative technique had to be modified in such a way that the surgery not only enabled satisfactory coitus but also facilitated menstrual flow and possibility of conception.

Case Report

Ist Case : 16 years old girl came with primary amenorrhoea complaining of cyclic spasmodic abdominal pain during three days every month for the last 1½ years. On examination she was found to have complete absence of vagina. On rectal examination there was an oblong, smooth, cystic, non-tender mass 10 cm×7 cm. approximately 5 cm above vulva anterior to the rectum.

2nd Case : 17 years old girl with primary amenorrhoea complained of cyclical pain abdomen for 8 days every month for the last 1 year. On examination the external genitalia was normal. Vagina was absent. No evidence of haemato-colpos made out. On rectal examination a small cervix and uterus were felt anterior to the rectum.

3rd Case : 20 years old girl with primary amenorrhoea complained of cyclic pain in the lower abdomen for last 6 years. The pain used to last for 3 to 4 days. On examination, the secondary sex characters were fully developed. The vagina was completely

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absent. On rectal examination, there was a pyriform swelling 3″×3″×2″, hard, and non-tender. The tip was pointing towards the perineum, it was 3½″ away from the anal verge, on examination, the uterus and its adenexa were normal. Sex chromatin was +tive on buccal smear exam.

Operation Technique :

Patient was kept in lithotomy position. A foleys catheter was passed. A "H" shaped incision was made at the dimple, which marked the site of vagina between external urethral meatus and the anus. The assistant kept a finger in the rectum to avoid injury and to guide the operator along the correct plane. With the help of the scissors a canal was made between the urethra and bladder anteriorly and rectum posteriorly. The dissection was done till the operator felt the apex of the carvix. The hollow mould was placed in position and a cruciate incision was made over the tip of the cervix. The menstrual blood was drained out. The mould was removed and the tip of the cervix was excised.

A split skin graft was taken from the medial side of the thigh and was put over a hollow acrylic mould in such a way that the raw area of the skin faced outward. This mould had a semilunar appearance in its cross section. The antero-posterior width was 2 cm. and lateral width was 3.5 cms. The length of the mould was 8 cms. (Fig. 1). This was inserted carefully inside the newly constructed vagina and the edges of the skin graft sutured with fine silk to the introitus. The mould was kept in lace by tying tapes through the metal hooks in the mould and fixing them around the thighs (Fig. 2). Post-operatively, the patient was kept on antibiotics and was put in lithotomy position. Her bowel was not allowed to move for 7 days. Continuous bladder drainage was needed. Dressings were changed on 7th day under anaesthesia. The skin graft had taken up completely and the vaginal capacity was normal (Fig. 3). The patients used the mould almost contunously while in the hospital and were instructed to use the mould regularly for 3 months, and thus to use it at bed time till getting married (Fig. 4).

Discussion

Many methods have been described for the reconstruction of the vagina by different authors. But the reconstruction in a functional uterus is a challanging problem because the menstrual fluid is having a basic character of tissue necrosis. The authors have failed to get any literature on the reconstruction of the vagina in a functional uterus. The authors have used modified Mc.Indoe technique for its reconstruction. This facilitates the regular flow of menstrual fluid and gives a satisfactory coitus with the possibility of conception (Fig. 5). The post-operative recovery, in all the 3 cases, was satisfactory. The various authors have critisized the use of hard obturator which results into vesico vaginal or rectovaginal fistula. But due to certain modification with our moulds, the chances of these complications were minimised. We used *acrylic* mould. The width of the mould is semilunar in shape that reduces the pressure on the urethra and rectum but its lateral bulbous shape gives uniform pressure on the lateral walls of the cavity which avoids haematoma formation beneath the skin graft, In all the 3 cases, the skin taken was 100%. The bowels are not allowed to move for 7 days which gives enough time for the graft to settle down. The cavity of the mould is packed with sterile gauge. the gauge is changed every day. Since the mould is open proximally and distally, it helps in the drainage of the blood from its retrograde course.

Fig. 1. Photo shows modified vaginal mould (Acrylic).

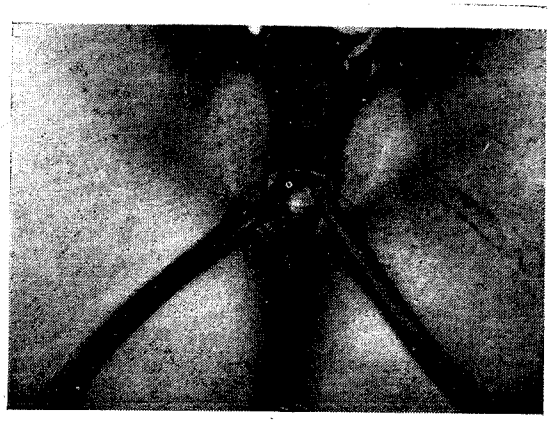

Fig. 2. Photo shows vaginal mould partially in vaginal cavity.

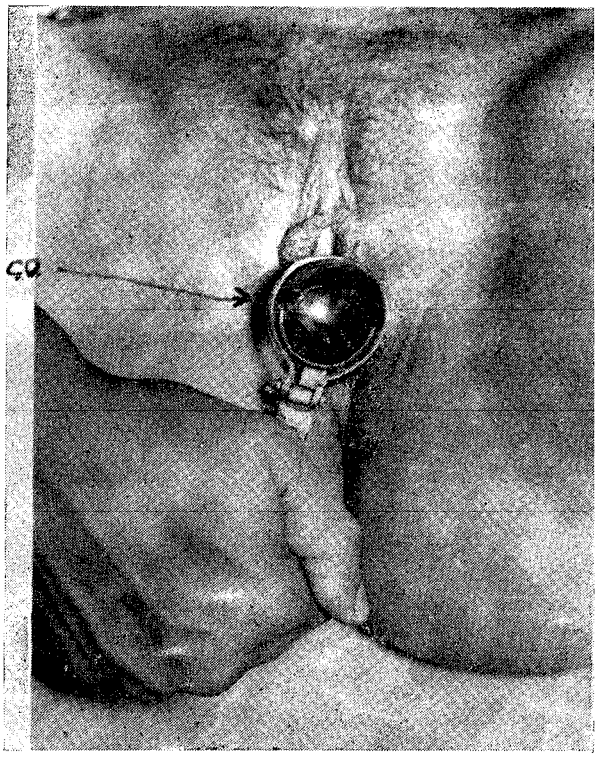

Fig. 3. Photo shows stabilisation of vaginal mould by elastic rubber bands.

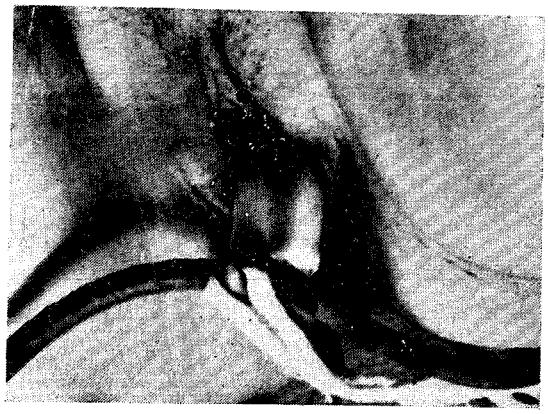

Fig. 4. Photo shows spacious vaginal cavity with cervical os.

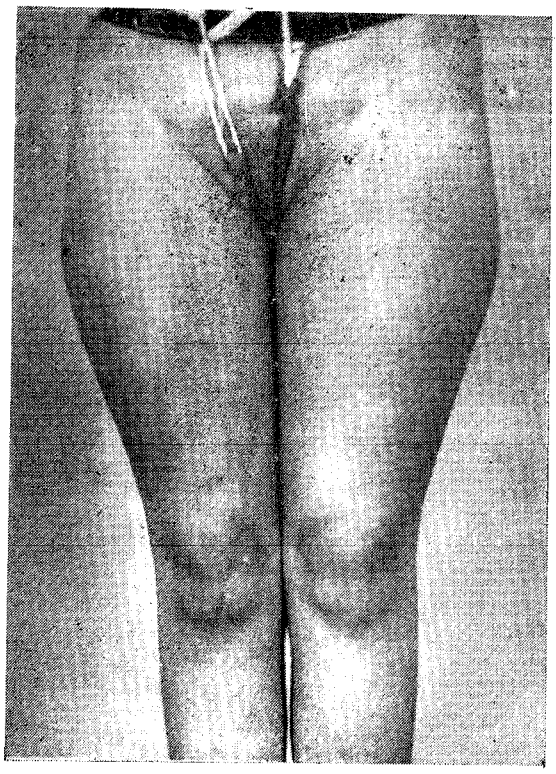

Fig. 5. Photo shows retention of vaginal mould by elastic rubber bands to the abdominal belt.

Summary

3 young women have been successfully operated by a modified Mc.Indoe technique of vaginoplasty. The result has been satisfactory from the point of view of mestruation and sexual intercourse. It remains to be seen, whether they conceive in due course of time.

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