VAGINAL RECONSTRUCTION; AMNION GRAFT TECHNIQUE

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SUMMARY

Vaginal reconstruction was performed on two cases of vaginal agenesis with amniotic membrane graft on the basis of McIndoes technique.

McIndoe's procedure using split thickness graft is the most popular method for vaginal reconstruction. The disadvantage being that a good size graft is required which leads to scarring at the donor place.

In case No. 1, 100% and in case No. 2, 80% graft was taken up. There were no complications. At follow up after 2 months vaginal depth was found to be 9.5 cm and 10 cm respectively. Thus the results obtained with amnion graft were similar to McIndoes technique.

Amnion graft has made the operation very simple which takes only 15-20 minutes. It appears to be simple, safe, effective and better procedure, worth giving a larger trial.

INTRODUCTION

Vaginal atresia is an infrequent condition which was first described by Realdus Columbus in 1572. Formation of Neo Vagina was first attempted by Dupuytren in 1817 and since then numerous procedures have been described. McIndoe's vaginoplasty using split thickness graft is one of the very popular method.

Amnion is the nearest thing to epidermis (Piggen 1960) formed by ectoderm of fetus.

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It is the extension of fetal skin. Although there is no evidence that it reproduces skin but some of the cells seem to undergo the same type of metaplasia as cornified cells of epidermis.

Use of amniotic membrane to fill the skin defect or as a graft was known in early part of twentieth century.

We are presenting two cases of vaginoplasty based on McIndoe's technique (McIndoe et al, 1938) where amniotic membrane was used instead of split thickness graft with excellent results.

CASE 1

Mrs B, 32 years, married for last 15 years presented on 2.1.96 with primary amenorrhoea and unsatisfactory marital relations. On examiation secondary sexual characters were developed. External genitalia and urethral meatus were normal. Vagina was absent. Two fingers could be introduced to a length of 2.5 cm. On rectal examination uterus was not felt and no other mass was felt. Ultrasonography of whole abdomen and pelvis revealed uterus to be hypoplastic of dimensions 2.8 cm. x 3.3 cm. x 1.3 cm. Both ovaries and kidneys were normal. Buccal smear showed sex chromatin to be positive. She was operated for vaginal reconstruction on 12-1-96. Patient received ampicillin & gentamycin followed by Norfloxacin and she remained afebrile. On 12th post operative day mould was removed and reinserted under General anaesthesia (Fig. 1) The graft was taken up 100%. After removal of the graft mucoid discharge came up for 3-4 days. Patient was discharged on 18th post operative day. After 2 months follow up vagina was well epithelised and vaginal length was 9.5 cm. (Fig. 2).

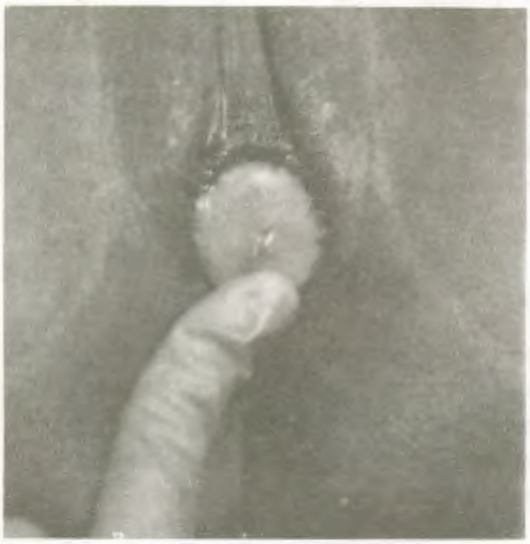

Fig. 1 : Acrylic mould in place.

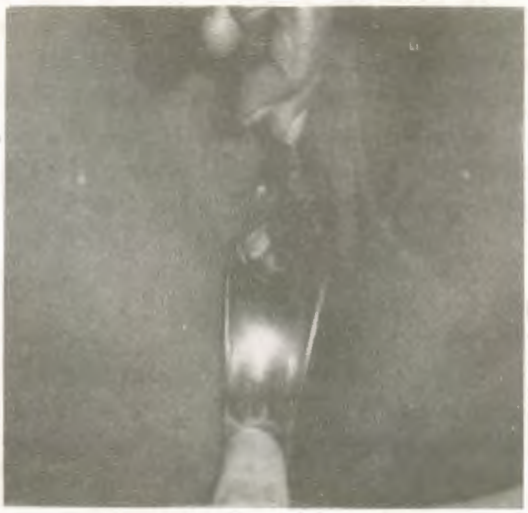

Fig. 2 : Neo vagina at 2 months follow up.

CASE 2

Mrs. R, 23 yrs., Married for 2 years presented on 21.11.89 with primary amenorrhoea and pain in abdomen. On examination secondary sexual characters were well developed. The external genitalia and urethral meatus were normal. The vagina was absent. Two fingers could be introduced upto a length of 2.5 cm. On rectal examination uterus was felt as a small nodule 1" in length. Buccal smear showed sex chromatin to be positive. I.V.P. showed normally functioning kidneys and Bladder. Vaginoplasty was done on 23.11.89. Post-operative period was uneventful. On 10th post operative day mould was removed. The graft was taken up 80%. Patient was discharged on 19th post-operative day. At two months' follow-up vagina admitted two fingers for 10 cm.

Surgical Technique :

1) Preparation of amniotic graft and acrylic mould :

An acrylic mould was prepared measuring 9 cm. in length, 3.4 cm. in diameter at top and 2.9 cm. diameter at bottom. It had a longitudinal groove on anterior surface and a hook at bottom.

Placenta was obtained from a normal & caesarean delivery respectively taking all aseptic precautions. Amniotic membrane was preserved in normal saline. No attempt was made to separate amnion from chorion.

Acrylic mould was covered with fresh amniotic membrane keeping the shining surface over the mould and Chorionic surface towards the vaginal wall. It was sutured with 4/o vicryl taking continuous sutures and keeping the suture line laterally on both sides.

2) Formation of Neovagina

After catheterization with folley's catheter a transverse incision was made at the center of the pouch and a space was created by blunt dissection with fingers between urethra and bladder anteriorly and rectum posteriorly.

The moulds covered with amniotic membrane was put in neo vagina. Excess of amniotic membrane was excised and the edges of the amnion graft were sutured with the edges of neo vagina with vicryl 3-0. Labial stitches were applied over the mould with silk.

Follow - up

On 10th post operative day mould was removed daily for disinfection and after cleaning the vagina, it was reinserted after applying Neosporin ointment over it. The patients were taught about the above procedure. Follow up was done every month for 3 months and then 3 monthly. The patients were discharged with advice to keep the mould continuously for two months, after which it was kept overnight for 1 month and patient was permitted to have intercourse.

CONCLUSION

Vaginal reconstruction with amnion graft is simple, safe and excellent short technique with minimal complications and hospitalization. Patients are more comfortable post-operatively and the results are comparable to McIndoe's technique.

REFERENCES

1. *McIndoe A. H. & Bannister J.B. : J. of Obstet & Gynec of Brit. Empire 45, 490 : 1938.*
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