ORIGINAL RESEARCH PAPER
Volume - 9 | Issue - 8 | August - 2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

STUDY OF OUTCOME OF MCINDOE VAGINOPLASTY IN YOUNG FEMALES WITH VAGINAL AGENESIS IN A TERTIARY CARE CENTRE

Obstetrics & Gynaecology

Anamika* Senior Resident, Deptt. of OBG, P. M.C. H, Patna. *Corresponding Author

ABSTRACT

BACKGROUND: Vaginal agenesis is a distressing problem which occurs commonly in isolated form or in association with cervical agenesis, MRKH syndrome, androgen insensitivity syndrome, androgenital syndrome etc. Vaginoplasty is the treatment option easily available in higher centres.
AIMS AND OBJECTIVES: To study the outcome of Mc Indoe's vaginoplasty operation done for vaginal agenesis.
MATERIAL AND METHOD: This was a retrospective study of 22 cases of vaginal agenesis who underwent Mc Indoe's vaginoplasty in a period of 5 years (2015-2019) done in a tertiary care centre of East India.
RESULT: Intraoperative complications were 1 case of rectal perforation which was repaired and minor bleeding which was secured easily . Post-operative complications were pain and discomfort which occurred mainly during mould change which resolved gradually. Graft uptake was 100% in 86.36%cases and patchy in 13.63% cases on day 7 of surgery.
2 of patients showed signs of infection at vaginal site at first OPD visit. Vaginal stenosis occurred in 1 of the patients . 2 cases with functional uterus started menstruating and I case of cervico-vaginal agenesis underwent hysterectomy. No sexual dissatisfaction or discomfort was reported.
Average vaginal length was 6-7 cm and width was 2-3cm at first visit after operation.
CONCLUSION: Mc Indoe's vaginoplasty is the simplest and least complicated method approved for treatment of vaginal agenesis.

KEYWORDS

Vaginal agenesis, MRKH syndrome, Mc Indoe's Vaginoplasty

INTRODUCTION

Vaginal agenesis has an incidence of 1 per 4500-5000 females.[1] It can be reconstructed in many ways.

Vaginal elongation by serial dilatation is the first line treatment recommended for vaginal agenesis. However, several surgical techniques may be used to create a neovagina.[2]

The most common surgical procedure used to create a neovagina has been the modified Abbe–McIndoe operation. This procedure involves the dissection of a space between the rectum and bladder, placement of a stent covered with a split-thickness skin graft into the space, and the diligent use of vaginal dilation postoperatively.

Bowel, buccal mucosa, amnion etc. can also used as graft options. But involve risk of excessive vaginal discharge, need for laparotomy, infections etc.

Other procedures that are techniquely more demanding are the Vecchietti and Davydov procedure. The laparoscopic Vecchietti procedure is a modification of the open technique in which a neovagina is created using an external traction device that is affixed temporarily to the abdominal wall. The Davydov procedure, was developed as a three-stage operation that requires dissection of the rectovesicular space with abdominal mobilization of a segment of the peritoneum and subsequent attachment of the peritoneum to the introitus. [2]

The modified Mc Indoe procedure is the most commonest and simplest method used for vaginal reconstruction and is the procedure of choice in my institute hence the present study was done .

MATERIAL AND METHOD

This was a retrospective study of 22 cases of vaginal agenesis who underwent Mc Indoe's vaginoplasty in a period of 5 years (2015-2019). Girls with vaginal agenesis were included in this study who were near consummation of marriage (20girls) or married already(2 girls) with problems in sexual intercourse due to short vaginal length. Hospital records of these cases were studied for history, physical examination, ultrasound and operative findings and data analysed by Microsoft excel.

Vaginoplasty was done by Mc Indoe's procedure in all these cases. Vaginal length was noted and then vaginal dimpling was identified and incision given. Tissue was dissected digitally between bladder and rectum and space was created. Soft mould was prepared by using gauze, condom, jalonet (paraffin sheets) and skin graft(Intermediate type of split thickness skin graft from anterolateral part of thigh) in cylindrical shape and was placed in this created space. Graft was fixed with interrupted sutures to labia minora. Dressing was done of the thigh area from where graft was taken using Neosporin lotion, jalonet and roller gauze which was removed on day 14. Foleys catheter was kept for bladder drainage for 7 days to avoid spillage of urine in graft area and avoid discomfort.

The soft mould was replaced with new soft mould on day 7 and day 14 after rinsing the vaginal space with normal saline and application of Neosporin ointment. On day 21 soft mould was substituted with firm mould prepared by using denture material. On these days graft uptake was also assessed. Patient was discharged after proper counseling about regular application of this mould, vaginal hygiene and need for follow up in opd at monthly interval for three months and thereafter six monthly. They were advised abstinence for 6 weeks and use of lubricant during intercourse thereafter.

At each visit vaginal length was noted and other complications assessed.

RESULT

Out of these 22 cases, 2 patients of isolated vaginal atresia and 1 patient of cervico-vaginal atresia who presented with hematometra and hematocolpos+/- hematosalphinx were drained in first sitting and vaginoplasty done in second sitting. 19 patients had rudimentary uterus underwent vaginoplasty in one sitting.

1 case of rectal perforation occured during creation of recto-vesical space during surgery which was repaired at same sitting .Only minor bleeding occurred during surgery and hemostasis was successfully secured in all cases. Post-operative pain and discomfort occurred mainly during mould change which resolved gradually. Graft uptake was 100% in 19 cases and patchy in 3 cases on day 7 of surgery. None of patients had significant post-operative complication. No donor site complication occur.

2 patients showed signs of infection at vaginal site at first visit which was treated with antibiotics. Vaginal stenosis occurred in 1 of the patients as she lost to follow up and didnot apply vaginal mould regularly after surgery and came after 3 months. 2 cases with functional uterus started menstruating and 1 patient who had associated cervical aplasia too had restenosis of blind uterine opening made during surgery and reformation of hematocolpos and hematometra underwent hysterectomy later on. No patient who were sexually active complained of any sexual dissatisfaction or discomfort. Average vaginal length was 6-7 cm and width was 2-3cm at first visit after operation.

DISCUSSION

Vaginal agenesis is suspected when a young girl presents with primary amenorrhoea, periodic lower abdominal pain or difficulty in sexual intercourse. USG and Xray-KUB was done in all our patients .MRI (if available and affordable) is most accurate to delineate other associated

female genital tract anomalies before planning surgery.
Graft uptake was 100% in 86.36 % of patients in my study which was similar to study done by Ozek et al and Gowardhan et al.[3,4] 100% graft uptake was seen in by Vidhyadhar et al.[5]

Good vaginal length was achieved by the procedure which is similar to study done by kamal S et al.[6] The average width of vagina was comparable to study by Gowardhan AK et al who reported depth to be 3-4 cm.[4]

Vaginal agenesis with functional uterus after reconstruction leads to normal menstruation .This was seen in all 3 of such patients however associated cervical aplasia led to restenosis in 1 of the case although malecot's catheter was kept in the blind opening in uterus in this case for 21 days. Thereafter, this case had to undergo hysterectomy.

Kamal S et al have stated normal sexual activity after the procedure which was similar to my study.[6] Some studies have shown vaginal dryness as a demerit which was not complained by my patients as use of lubricant was advised during intercourse.

Vaginal stenosis was seen in only 1 case(4.55%) which was only due to loss to follow up. Proper counseling of both the girl and her female attendant should be the key goal to prevent it. Kamal S et al reported 4 cases of partial vaginal stenosis in 50 patients.[6]However Gowardhan et al reported no cases of stricture or fistula.[4]

No case of fistula formation was seen in my study too. Rectal perforation was seen only in one case intra-operatively which was simultaneously and successfully repaired and could have been easily prevented if the dissection was slower.

The incidence of infection related to vaginal site as well as donor site are negligible postoperatively. No patient had post-op fever. Only 2 patients that too on opd follow up visit showed infective vaginal discharge which was most probably due to poor hygiene and was easily treated with antibiotics.

No patient required blood transfusion postoperatively. This was similar to other studies.[4,5,6]

This shows that either no or only minor complications occur in this procedure which are easily treatable.

CONCLUSION

Mc Indoe vaginoplasty with skin graft is safe and simple procedure of choice for vaginal reconstruction. Among surgical techniques it should definitely be the firstline method as:

1. Simple and techniquely less demanding.
2. Less morbidity.
3. No mortality.
4. No need of laparotomy.
5. No risk of infections or excessive discharge as in amnion or bowel as graft.
6. Good graft uptake.
7. Good vaginal length achieved.
8. Satisfactory sexual intercourse.

REFERENCES

1. Fontana L, Gentilin B, Fedele L, Gervasini C, Miozzo M. Genetics of Mayer-Rokitansky-Kauster-Hauser (MRKH) syndrome. Clin Genet 2017;91:233-46.[Pubmed assessed 28.06.2020]
2. https://www.acog.org/clinical/clinical-guidance/committee-opinion/ articles/ 2018/01/ mullerian-agenesis-diagnosis-management-and-treatment [assessed 28.06.2020].
3. Ozek C, Guler T, Alper M, Gundogan H, Bikay U, Songur E, Akin Y, Cagdas A. Modified McIndoe procedure for vaginal agenesis. Ann Plast Surg 1993;43:393-396.[assessed 28.06.2010]
4. Gowardhan AK, Bagade PM. A clinical study of modified Mc Indoe vaginoplasty with split thickness skin graft: a tertiary care experience. Int J Reprod Contracept Obstet Gynecol 2020;9:xxx-xx.[assessed 21.06.2020]
5. Bangal VB, Dandekar KN, Gadhave KC, Singh RK. EXPERIENCES WITH MC INDOES VAGINOPLASTY IN MAYER ROKITANSKY- KUSTER- HAUSER SYNDROME-A CASE SERIES. Int Jour of Biomed Res [Internet]. 2012Jun.1 [cited 2020Jun.28];3(5):229-32. Available from: https:// ssjournals. com/index. php/ ijbr/ article / view/ 740
6. Kamal S, Tirkey S, Singh S, Chakraborty S. A clinical study of Mc Indoe vaginoplasty in vaginal agenesis. Int J Reprod Contracept Obstet Gynecol 2019;8:4732-5.[assessed 21.06.2020]