

MALDEVELOPMENT OF MULLERIAN SYSTEM

(A Study Report) .

by

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SUMMARY

Fourteen cases of developmental defects of Mullerian system have been detected, studied and managed mainly on surgical line to get maximum functional improvement. Important aspects have been highlighted. Because of their parity (possibly due to non-detection) and management in a semi-rural area the study report has been presented.

Introduction

Malformations and maldevelopments of genital tract are not so rarely detected as before even in rural hospitals at present due to more and more availability of laparoscopes. This paper analyses 14 Mullerian maldevelopments which were detected during last 5 years in Lalbagh S. D. Hospital, Murshidabad. A brief outline of the management has been discussed.

Analysis of the cases

(I) Mode of presentation:

- (i) Primary amenorrhoea—10
(plus primary infertility—5)
- (ii) Primary infertility—2
- (iii) Recurrent abortions—2
- (iv) Intractable dysmenorrhoea—1

(II) Investigations:

- (i) Thorough history taking: Out of 14

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cases, 10 patients were muslims and 9 girls were married before 14 years. Primary amenorrhoea was commonest presentation. Dyspareunia was associated complaint in 6 cases who were married. Infertility, first trimester recurrent abortion and intractable dysmenorrhoea were other presentations. Symptoms related to urinary tract were absent in all cases. On psychological assessment male type of attitude was noted in 2 cases.

(ii) Thorough clinical examination:

**Systemic examination—N.A.D. in all cases.

**Secondary sex characters—Absence or very poor breast development—4, absence of axillary and pubic hairs—3, absence of both these characters—2, normal features—5.

**P/A—No abnormality could be detected in any case.

**Pelvic examination (vaginal and rectal).

(a) Vagina—Total absence of upper vagina (4/5)—6, blind vagina—4, normal vagina—4 (external os visible).

(b) Uterus: Could not be palpated—3, nodule like structure—4, vague feel—4, normal uterus—3.

(iii) Examination under anaesthesia (E.U.A.): Previous findings could be confirmed in most of the cases. Bicornuate uterus was suspected in 2 cases.

(iv) Diagnostic laparoscopy: This was most important diagnostic tool. Dye test was done when uterus and cervical canal appeared normal. As per various observations the patients were grouped as follows to decide the line of management.

Group I: Both ovaries were normal; no tube or uterine structure—2 cases.

Group II: Both ovaries were normal; proximal part of fallopian tubes (fimbriated ends) were seen to be connected by a peritoneal fold—1 case.

Group III: Both ovaries were normal; both tubes were present almost upto full length; Two small nodules were attached at the medial ends of the tubes and a peritoneal fold had joined the nodules—3 cases.

Group IV: Both ovaries and tubes were normal; uterus looked small. (H/O recurrent abortion)—hypoplastic uterus—1 case.

Group V: Both tubes and uterus (Bicornuate) could be seen; Ovaries were normal; (H/O Primary infertility) Dye test was positive on both sides—2 cases.

Group VI: Both tubes and ovaries were normal; One uterine horn was well developed and the other was rudimentary. (H/O intractable dysmenorrhoea; Noncommunicating rudimentary horn—1 case. Dye test was positive on healthy side.

Group VII: Uterus and both tubes and ovaries were normal; In 1 case right tube was thickened and distended with tarry discharge at ostium. (H/O Primary amenorrhoea, P/V—Blind vagina). Transverse vaginal septum—3 cases.

(v) Hysterosalpingography: This was done in 4 cases where external os could

be seen on speculum examination. Reports—bicornuate uterus (2), unicornuate uterus (1), hypoplastic uterus (1).

(vi) I.V.P.: This was done in all cases. No significant abnormality could be detected in any case.

(vii) Buccal smear test: This was done in all 10 cases of Primary amenorrhoea; Barr body—positive (9), negative (1).

(viii) Gonadal biopsy: This was done during diagnostic laparoscopy and laparotomy. Ovarian tissue could be detected in all cases.

(ix) Endocrine assay: This could not be done in any case properly due to lack of facilities. However, serial vaginal cytology was done and 'cornification index' was fair in all cases suggesting functioning ovary.

Management

Group I and II: Reassurance; vaginoplasty using amniotic membrane.

Group III: Uterine reconstruction (Mullerianoplasty) and vaginoplasty at the same sitting; Post-operative cyclical oestrogen therapy and follow-up.

Group IV: Cyclical oestrogen and oestrogen/progestogen; sequential regime.

Group V: Unification of uterus using Jones and Jones technique (modified Strassmann's operation).

Group VI: Excision of rudimentary horn of that side.

Group VII: Vaginoplasty after excision of septum. 'Advancement operation' (Jeffcoate).

***Steps of vaginoplasty using amniotic membrane—Patient's blood group and amnion donar placental cord blood group are tested which should be identical. Amniotic membrane was obtained from freshly delivered placenta under strict asepsis and was separated from the chorion—placed

over a 7" X 2" paraffin candle stick (the mould) covered by a condom; the shining surface faced the condom—the mould was placed in the space dissected between the bladder and rectum at the vaginal site after perfect haemostasis—the mould was kept for 14 days.

***Steps of uterine reconstruction (Mullerianoplasty—A Cu-T with long extra silk thread within the applicator was placed inside a central canal of the 'amnionated' vaginal mould as described before—Vaginoplasty was done at first. Following exploratory laparotomy a transverse incision was made from medial aspect of one fallopian tube, almost bisecting the uterine (mullerian) nodule, the peritoneal fold joining the other uterine nodule—upto opposite fallopian tube; the Cu-T was pushed from below so that it becomes visible with the applicator tube in the pelvis in between the two halves of dissected mullerian system—Placing the lateral ends of the transverse portion of Cu-T at the medial dissected portion of each tube, the entire mullerian system was sutured over the Cu-T and applicator with 000 catgut concealing it completely inside the newly constructed uterus; the plunger of the Cu-T was removed—the mould with the long thread was kept in-situ after excising extra portion of the applicator tube—The mould and the applicator tube were removed on 14th and 30th days respectively—Cu-T was left for 6-12 months if not more—Cyclical oestrogen was given with proper follow-up.

Discussion

Vaginoplasty using amniotic membrane of placenta having same cord blood group as that of recipient has given excellent result

in all cases of this series. It may undergo same type of metaplasia as cornified cells of epidermis. Use of amniotic membrane was started long ago by various workers.

Regarding Mullerianoplasty, in 1 case there was slight hormone withdrawal spotting at 5th and 6th months. In other cases it is just of academic interest at this stage and functional development, if any, is being followed up regularly till date.

Following unification of bicornuate uterus and excision of rudimentary horn (dysmenorrhoea cured) pregnancy occurred and was delivered by L.S.C.S. Vijay *et al* (1985) has studied the problems of Mullerian dysgenesis in detail.

Conclusion

Surgical correction of anatomical morbidity of Mullerian system in 13 out of 14 cases to get maximum functional improvement with relief of symptoms has been attempted with limited facilities available in a non-teaching semirural hospital. Microsurgical techniques could give better results in Mullerianoplasty group.

References

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