OBSTETRIC OUTCOME IN CONGENITAL MALFORMATION OF MULLERIAN SYSTEM

by

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Gross congenital malformation of the mullerian system is almost incompatible with obstetric performances. While the minor one usually escapes attention because of its negligible adverse effects, it is only the moderate degree of malformations arising out of defective fusion or canalisation which adversely affects the obstetric performances. In this communication as critical evaluation of the effects of congenital malformation of genital tract on obstetric performances is presented.

Cases were collected from district hospitals Jalpaiguri, Suri and Chinsurah, West Bengal and concerns the years 1965-1973 while the author was attached to those hospitals. During those period there were 19,888 births and 29 cases of congenital malformation of mullerian system associated with pregnancy, giving an incidence of 1 in 686 (0.15%). Similar figures were also mentioned by Blair (1960) 1 in 770 and Wilson *et al* (1961) 1-2/1000.

Analysis with Comments

The analysis was made in respect to the prospective and retrospective obstetric behaviour of the cases.

TABLE I

Gravidity

Gravida	1	2	3	4	5+
No.	9	7	3	2	8

The distribution of grandi multis was in conformity with that prevalent in rural obstetric practice. These mothers had a total 93 pregnancies.

TABLE II

Types of Malformation With Number of Pregnancies

Name of the Author	No. in series	Arcuate	Subseptate	Bicornuate	Others
Blair, (1960)	68	25%	11.8%	30.8%	32.4%
Way, (1945)	12	—	41.6%	58.3%	—
Macgregor, (1957)	16	37.5%	18.7%	43.7%	—
Present series	29	41.4%	31%	20.7%	6.9%
		(12)	(9)	(6)	(2)
No. of Pregnancies	93	42	28	20	3

There were 12 cases of arcuate uterus, 9 of subseptate uterus with bicorpus unicollis and 6 of bicornuate uterus with equal horns. Atresia of the upper $^1/_3$rd of vagina with an apparent pinhole opening was found in 2. Retrograde dilata-

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tion during caesarean section lead to free drainage of lochia in both the cases. The apparent discrepancy noticed in the incidence of malformations in different series might be due to variation in the nomenclature accepted in a particular series or omission or addition of minor abnormalities. Inspite of repeated pregnancy wastage, the rural mothers are reluctant to come for investigation and even when they do come the facilities are often inadequate to confirm congenital malformation. Table III shows clearly that in atleast 12 out of 29 cases there were enough indication for investigation which would have revealed some type of abnormality in preconceptional stage.

TABLE III

Previous Obstetric Performances in Relation to the Type of Uterine Malformation

	Arcuate	Sub-septate	Bicornuate
Recurrent abortion	—	1	—
Recurrent prematurity	2	2	—
Recurrent breech	—	2	2
Recurrent transverse	2	1	—

The rural mothers are reluctant to avail antenatal care even when the facilities are extended to them and are rushed to the hospital more or less by compulsion rather than elective choice. Thus the detection and confirmation of the malformation were made only during abortion or labour. (Table IV). Nature of malformation was confirmed during C.S. in 10 cases, during manual removal and exploration in 7 cases, during D + E in 5 cases. Blair (1960) mentioned that 68% remained undiagnosed until labour was well established.

TABLE IV

Employed Method for Confirmation of Diagnosis

	Ante-partum	Intra-partum	Post partum
Pelvic examination	—	2	—
During C.S.	—	10	—
Internal version	—	3	—
Decapitation	—	2	—
Manual removal + Exploration	—	—	7
D + E	—	—	5

As previously mentioned there were 93 pregnancies in 29 mothers with malformed mullerian system. The incidence of abortion and prematurity were expectedly high in these cases. Table V shows their incidence in relation to type of malformation.

TABLE V

Outcome of Total Pregnancies (93)

		Abortion		Prematurity	
		No.	%	No.	%
Arcuate	(42)	2	5	18	43
Sub-septate	(28)	10	35.7	16	57
Bicornuate	(20)	10	50	10	50
Atresia Vagina	(3)	—	—	1	33.3
	93	22	23.6	45	48

There was high prevalence of abortion and prematurity in subseptate and bicornuate uterus but arcuate uterus was responsible for only increased prematurity. The incidence of abortion and prematurity compared to other authors was shown in the Table VI.

Malpresentations are common in uterine malformation and in fact the faetuses are better placed in the position depending upon the contour of the uterine cavity. Table VII showed the type of presentation met in different types of malformation.

There was high incidence of breech and transverse, together accounting for 57.7%. While a similar incidence was cited by Blair (1960) being 56.8%, a lower incid-

TABLE VI

Incidence of Abortion and Prematurity, Reported by Other Authors

Author	Total pregnancy in the series	Abortion	Prematurity
Fenton and Singh (1952)	146	16.5%	8.3%
Macgregor (1957)	42	45%	22%
Blair, (1960)	147	48%	—
Wilson and Haues (1961)	117	27.3%	—
Present series	93	23.6%	48%

TABLE VII

Presentation (81)

		Vertex		Breech		Transverse	
		No.	%	No.	%	No.	%
Arcuate	(40)	18	45	11	27.5	11	27.5
Subseptate	(18)	5	27.8	8	44.4	5	27.8
Bicarnuate	(10)	4	40	2	20	4	40
Atresia Vagina	(3)	3	100	—	—	—	—
		30	42.3	21	29.6	20	28.1

TABLE VIII

Methods of Delivery (71)

	Arcuate		Subseptate		Bicornuate		Atresia		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Normal	18	45	5	27.8	4	40	—		27	38
Asstt. breech	9	22.5	8	44.4	2	20	—		19	26.8
Transverse —Vag. delivery	7	17.5	—	—	2	20	—		9	12.7
C.S.	6	15	5	27.8	2	20	3	100	16	22.5
	40	100	18	100	10	100	3	100	71	100

ence was mentioned by Macgregor (1957) and Wilson *et al* (1961), being 34-8% and 35.3% respectively.

Because of high prevalence of malpresentations and bad obstetric history, caesarean section rate was very high, being 22.5%. The rate indeed would have been much higher if the patients attended the antenatal clinic or atleast came early in labour. As many as 12.7% cases of transverse lie were delivered vaginally. Normal delivery occured in only 38% cases. Blair (1960) mentioned spontaneous delivery in 48.2% and C.S. in 27.6% while Wilson *et al* (1961) mentioned 15.3% incidence of C.S.

TABLE IX
Complications During Labour

Author	Retained placenta and manual removal	P.P.H.	Obstructed labour
Macgregor (1957)	21.7%	—	—
Wilson, *et al* (1961)	12.9%	5.9%	—
Blair (1960)	45.2%	21.4%	—
Present series	32.4% (23)	10% (7)	7% (5)

Attachment of placenta over the septum or in the ridge of the bicornuate uterus is responsible for nonseparation or partial separation of placenta. This coupled with atony and imperfect retraction of the uterus leads to P.P.H. 32.4% incidence of retained placenta and 10% incidence of P.P.H. clearly emphasises mandatory hospital delivery and careful conduction of 3rd stage. 7% incidence of obstructed labour reflects neglected intranatal care in rural mothers.

Perinatal mortality of 50% is indeed high. Increased incidence of prematurity, malpresentation, inadequate antenatal and late arrival to the hospital during labour are some of the palpable factors responsible.

Summary

1. A prospective and retrospective study of 29 cases of congenital malformation of mullerian system with pregnancy was made.

2. The incidence was 1 in 686 and their total number of pregnancies were 93.

3. Arcuate, Subseptate and Bicornuate variety—constituted 41.4%, 31% and 20.7% respectively.

4. Diagnosis was confirmed—during labour in 17 cases, during exploration in 7 cases and during D and E in 5 cases.

TABLE X
Outcome of the Babies

		S.B. No.	N.D. No.	P.D. No.	%
Arcuate	(40)	5	13	18	45
Subseptate	(18)	5	7	12	66.6
Bicornuate	(10)	3	2	5	50
Atresia Vagina	(3)	1	0	1	23.3
	(71)	14 (20%)	22 (31.1%)	35	(49.9)

5. The incidence of abortion and prematurity was 23.6% and 48% respectively.

6. The incidence of Breech and Transverse was 29.6% and 28.1% respectively.

7. In 38% there was normal delivery, C.S. was done in 22.5% and assisted breech delivery in 26.8%.

8. Incidence of Retained placenta was 32.4% and that of P.P.H. was 10%.

9. Perinatal mortality rate was 49.9%.

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