

COMPOUND PRESENTATIONS — A CLINICAL STUDY

by

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Compound presentation is one of the few obstetric complications that has been taken lightly by the obstetricians. It is possible that the benign course this complication takes in the majority of cases is responsible for this attitude. A glance at the literature reveals the indifferent attitude of the obstetricians. Goplerud and Eastman (1953) could find only 3-4 references about compound presentation and that too in German and Polish languages. Hardly a page or two are devoted to this complication in most of the obstetric textbooks. It is encouraging to note that a few more articles have appeared in the last decade. Goplerud (1953), Gibbered (1955), Bhowse (1961) and Chan (1961) are some of the workers who have published their results.

We feel that compound presentation is a complication that is fairly common and requires due recognition by the obstetricians, in spite of its benign course in most of the cases.

Material and Methods

This is a retrospective clinical study of 75 cases of compound pre-

sentation managed at Nowrosjee Wadia Maternity Hospital, Bombay, from January, 1956 to December, 1960 (five years). The cases have been analysed in relation to age, parity, time of diagnosis, management and foetal outcome. An attempt is made to evolve criteria for management of this complication. We have endeavoured to find out whether the higher foetal mortality and maternal morbidity in compound presentations is due to interference itself or is the result of the abnormal presentation.

Analysis

Table 1 gives yearly incidence of compound presentation. The incidence in our series is fairly constant, with an average of 1 in 631 deliveries. Table II shows that the incidence in other centres varies from 1 in 250 to 1 in 800 deliveries. Tables I, II & III.

TABLE I
Incidence of Compound Presentation

Year	Total No. of deliveries	No. of cases of compound presentation	Incidence
1956	8,327	12	1 : 694
1957	9,363	17	1 : 550
1958	10,264	15	1 : 684
1959	9,839	13	1 : 756
1960	8,540	18	1 : 474
Total	46,333	75	1 : 631

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TABLE II

No.	Author	No. of total deliveries	No. of cases compound presentation	Incidence
1	McCormick (1947)	—	—	1 : 250-300
2	Gibberd (1955)	—	—	1 : 800
3	Greenhill (1955)	—	—	1 : 350
4	Goplerud (1953)	42,410	65	1 : 652
5	Bhose (1961)	66,821	91	1 : 734
6	Present series (1963)	46,333	75	1 : 631

TABLE III
Varieties of Compound Presentation

Type	Without cord prolapse	With cord prolapse
Vertex and hand(s)	38	12
Face and hand(s)	1	2
Vertex and leg(s)	5	4
Vertex, leg(s) & arm(s)	—	4
Breech and arm(s)	5	4
Total	49	26

Table III reveals the different varieties of compound presentation. Vertex and hand account for 66% of the total cases. The possibility of

compound presentation should be kept in mind when version is done for breech with extended legs. A breech with extended legs when successfully turned may produce a compound presentation with head and leg(s). The four cases of compound presentation with head and leg, did not give any history of external version being performed. Cord prolapse was present in 26 cases (34%). Incidence of cord prolapse in Goplerud and Bhose series was 23% and 27.5% respectively. Association of cord prolapse in compound presentations increases the foetal mortality.

TABLE IV
Relation between Age Group and Parity

Age	Parity					Total
	I	II	III-V	VI-IX	X & above	
Below 20 years	10	3	—	—	—	13
21-25 years	3	4	18	—	—	25
26-30 years	1	—	13	8	—	22
31-35 years	—	—	3	7	3	13
36 & above	—	—	—	2	—	2
Total	14	7	34	17	3	75

TABLE IV A
Comparison of Parity in other series

Parity	Present series	Donald	Bhose	Goplerud
Primipara	14 (19%)	11 (17%)	11 (12%)	14 (25%)
Multipara	61 (81%)	54 (83%)	80 (88%)	51 (75%)

Table IV analyses the cases in relation to age and parity. It is seen from table IV^A that multiparity accounts for more than 80% of the cases. Incidence of engagement of the presenting part is shown in table V. The

not fill the pelvic brim completely. Here there is an opportunity for prolapse of a limb or the cord. Donald's figures show a high incidence of twins in compound presentations (18 out of 65 cases). Table VI compares the

TABLE V
Condition of the presenting part

Series	Total No. of cases	Floating	Engaged
Bhose	91	77 (85%)	14 (15%)
Present series ..	75	54 (72%)	21 (28%)

TABLE VI
No. of Twin Pregnancies

Authors	Total No. of twins	First of twins	Second of twins
Donald	18	2	16
Bhose	9	1	8
	(2 triplets)		
Present series ..	5	2	3

floating presenting part appears to be an important predisposing factor for the causation of compound presentation. Though it is only a speculation for the time being, we believe that the uterine contractions during labour do produce currents of waves in the liquor amnii and when the membranes rupture, the currents produced in the liquor by the uterine contractions may bring about a prolapse of a limb or cord, if the presenting part is floating. Once the presenting part is engaged, the currents produced in the liquor by the uterine contractions do not produce prolapse of the limb or the cord, because the pelvic brim is filled by the presenting part. In twin pregnancies, the size of the individual babies is smaller than the size of the single fullterm baby and so the presenting part does

incidence of twins in compound presentations in different series. It is seen that the compound presentation is more common in the second of the twins. Pelvic contraction was diagnosed clinically in 6 cases in our series, 3 cases in Bhose's series and in 13 cases in Goplerud series. Table VII gives a comparative idea about the stage of labour when the compound presentation was detected. The diagnosis of compound presentation was made in the first stage of labour in 65.3% of our cases. In Goplerud series 47.6% of the cases were diagnosed in the first stage of labour. Frequent vaginal examinations appear to be responsible for the early diagnosis of compound presentation in our series. The diagnosis of compound presentation in labour depends on the frequency and care

TABLE VII
Stage of Labour when compound presentation was detected

Stage	Present series	Goplerud series
Before onset of labour	—	2 (3.1%)
1st stage	49 (65.3%)	29 (44.5%)
2nd stage	14 (18.6%)	34 (52.4%)
Undiagnosed	12 (16%)	—

with which vaginal examination is carried out. A minor degree of prolapse of a limb by the side of the presenting part may be missed if thorough digital exploration is not carried out. A major degree of prolapse of the limb beyond the presenting part, of course, cannot be missed, unless the vaginal examination is omitted.

The foetal heart sounds were heard in 65 cases and absent in 10 cases at the time of admission. There were 19 premature babies and 56 full-term babies in relation to duration of gestation; whereas 21 babies were pre-

mature and 54 babies were full-term in relation to weight. Babies weighing less than $4\frac{1}{2}$ pounds are considered as premature. Altogether 26 babies were lost. Out of these 26 babies, 14 were associated with cord prolapse, and 6 were associated with prematurity. So compound presentation accounted for 6 foetal deaths, corrected incidence of 8% foetal mortality. The foetal mortality in Goplerud series was 3.2%.

Management

Table VIII and VIII A relate the

TABLE VIII
Line of Treatment followed in compound presentations associated with head

Type of treatment	Total cases	Babies living	Perinatal Mortality
1 Absolute spontaneous, left alone without interference ..	16	10	6 2 with cord 4 without cord
2a Reposition of hand or leg without anaesthesia ..	23	15	8 7 with cord 1 without cord
2b Reposition with anaesthesia	4	3	1 without cord
3 Reposition followed by Willet's scalp holding forceps ..	7	7	nil
4 Internal podalic version ..	8	4	4 2 with cord 2 without cord
5 Craniotomy	2	—	2 1 with cord 1 without cord
6 Forceps	3	2	1 without cord.
7 Caesarean section	1	1	—

TABLE VIII A
*Line of Treatment followed in compound presentation
 associated with breech*

Type of treatment	Total cases	Babies living	Perinatal Mortality
1 Spontaneous delivery ..	5	2	3 1 S.B. with cord 2 prematures.
2 Breech extraction	2	2	—
3 Replacement without anaesthesia	2	2	—

line of treatment followed in vertex and breech cases associated with compound presentation. Table IX higher foetal mortality in the interference group is not related to interference per se, but is the result

TABLE IX
Rate of Interference in different series

	Present series	Bhose series	Goplerud series
Non-interference ..	21 (28%)	24 (26.3%)	27 (41.5%)
Interference ..	54 (72%)	67 (73.7%)	38 (58.5%)

compares the interference rate in other series. Different views are held as regards the management of cases of compound presentation. The point at issue is, whether it is necessary to replace the prolapsed limb as soon as it is diagnosed, or should one wait hoping that nature would do the needful, and interfere only when nature fails? The proponents of the policy of wait and watch claim good results in terms of foetal survival and spontaneous labour. They also believe that interference increases the foetal loss. Those who believe in early interference argue that, cases that require interference are the cases who would not have a spontaneous reposition and normal labour if left to nature. So the

of malpresentation, poor uterine contractions or overlooked disproportion. It is believed that the prolapsed limb in some way interferes with the mechanism of labour, possibly by interfering with rotation.

In deciding the line of treatment in cases of compound presentation, contracted pelvis should be ruled out clinically or if necessary by X-ray. Associated cord prolapse should also be ruled out. Compound presentation with contracted pelvis or cord prolapse requires early interference. If the presenting part is engaged, one should wait till the cervix dilates fully. If the prolapsed limb is spontaneously repositioned by this time, nothing special has to be done. If the presenting part is floating,

then early interference may be needed because the prolapsed limb itself can interfere with the engagement of the presenting part. The time of interference requires nicety of obstetric judgement. If the reposition of the limb could be achieved, we have found the use of Willett's scalp holding forceps very useful in vertex presentations. It helps in two ways, it prevents the recurrence of the prolapse of the limb because it makes the head fit well into the pelvic brim. Though hypothetical it may also favour cervical dilatation and improve uterine contractions. We used the Willett's forceps in 7 cases. The use of internal podalic version in cases of compound presentation is condemned by most obstetricians. Internal podalic version was performed in 8 cases in our series, 21 cases in Goplerud series and 26 cases in Bhow's series. There was no case of uterine rupture as a result of version in our series. There were 3 uterine ruptures and 1 maternal death associated with version in Goplerud series. We feel that internal podalic version should be considered when compound presentation is associated with fully or nearly fully dilated cervix. The standard criteria for performing internal version must be, of course, satisfied recent rupture of membranes with enough liquor, sufficient dilatation of cervix to introduce the hand, normally contracting and relaxing uterus and a parity less than five. We lay more stress on parity because all three cases of uterine rupture in Goplerud series had parity of seven or above. Most of the authorities are agreed that caesarean section is

not necessary in an uncomplicated case of compound presentation. Craniotomy may be necessary when the patient is brought to the hospital very late when the foetus is dead. Craniotomy would be less traumatising than reposition of a limb in such cases because there is usually a missed pelvic contraction in most of such cases. We have not lost a single patient in the present series.

Summary and Conclusions

1. It is a clinical study of 75 cases of compound presentations. Vertex and arm accounted for 66% of the cases. Incidence of compound presentation is 1 in 631.
2. Floating presenting part, contracted pelvis, twins, prematurity and multiparity were predisposing causes.
3. Cord prolapse was found in 34% of the cases.
4. Willett's scalp holding forceps and internal version have a place in selected cases of compound presentation.
5. There was no maternal death. Corrected foetal mortality was 8%.
6. Author's views on the time of interference are discussed.

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