

PLACENTAL ATTACHMENT—A FACTOR IN THE ETIOLOGY OF BREECH PRESENTATION

By

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SUMMARY

One hundred and twentysix breech and 181 cephalic presentations after 34 weeks gestation were subjected to abdominal ultrasonic examination with special attention to the location of the placenta. The placental positions were classified into 5 groups—fundal, anterior, posterior, placenta praevia and cornuo-fundal. Cornuo-fundal attachment and low-lying placentae were seen more often in the breech group as compared to the cephalic group i.e. 63.5% vs 13.25% ($P < 0.001$) and 9.5% vs 1.65% ($P < 0.01$) respectively. Lateral placental attachment was seen more often in the cephalic group i.e. 75.6% vs 16.6%. The difference is statistically significant.

Introduction

The etiology of breech presentation is still a matter of speculation and thus, largely unknown.

The "textbook" causative factors quoted are prematurity, multiple pregnancy, placenta praevia, multiparity, congenital abnormalities in the fetus contracted pelvis and pelvic tumours. Yet, Fianu (1976) found a definite cause in only 2.2% of 2031 breech deliveries he studied. No causative factor was thus found in the vast majority of cases.

In 1940, Vartan while commenting on the etiology of breech presentation stated "what struck me and still impresses me concerning the etiology of breech presentation is that most of these factors which are reputed to the causes, seldom occur. I concluded,

therefore, that either the "cause" is so rare as to be almost a chance coincidence or that the cause in almost every case is "unknown".

While offering a suggestion that the site of placental location could influence the presentation, Stevenson (1949) stated that the position of the placenta in the near term or term human uterus could indent and alter the ovoid shape of the amniotic sac and thus the polarity of the sac. The fetus accommodated itself to the shape of the sac, the fetal head seeking its smaller pole. He concluded, that, the position of the placenta has a definite influencing effect upon the fetal presentation in an appreciable proportion of cases.

The aim of this study was to determine the possible role of the placental site as a causative factor in breech presentation.

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Material and Methods

One hundred and twentysix patients with uncomplicated breech presentation after 34

weeks gestation and a control group of 181 patients with cephalic presentation at a similar gestational age were included in the study. The period under study was February 86 to August 87. Patients with an obvious causative factor like fetal hydrocephalus or anencephaly were excluded from this study.

Abdominal ultrasonic examination using the real time grey scale ultrasonic machine operated at 3.5 MHz was done in all the cases. The placenta was identified and its exact location was noted. They were classified, thus, with the following five groups:

(1) Fundal, (2) Placenta Praevia, (3) Anterior, (4) Posterior, and (5) Cornuofundal.

Results

The results were analysed and are presented in Table I.

Fundal implantation was seen in 9.4% while low-lying placentae was found in only 1.65% cases. Cornuofundal attachment was seen in 13.25% cases.

Discussion

Why 3% of all fetuses at term present as breech still remains an unanswered question. Tomkins (1943) estimated that in only 15% of cases could a causative factor be shown. It is conceivable, by Pajot's law of accommodation, that any alteration in the shape of the uterine cavity may change the fetal lie. Apart from anatomical deformities and uterine tumour, only the placenta modifies the shape of the amniotic cavity. The normal shape of the uterine cavity at term is a pyiform ovoid with the wide end above and the narrow end below.

If the placenta is implanted in one of the

TABLE I

Placental Site	Breech presentation		Vertex presentation	
	N	%	N	%
Fundal	13	10.3	17	9.4
Cornuofundal	80	63.5	24	13.25
Anterior	12	9.5	79	43.6
Posterior	9.0	7.1	58	32
Placenta Praevia	12	9.5	3	1.65

Breech presentation

Cornuo-fundal attachment of the placenta was seen in 63.5% cases. 10.3% cases had a fundal attachment. Lateral attachment—anterior and posterior—were seen in 16.6% cases. Low-lying placentae were seen in 9.5% cases.

Vertex presentation

Lateral placental attachment was seen in the vast majority of cases i.e. 75.6%.

cornual regions of the fundus, proportions of this ovoid will be reversed so that the wider portion is now below. In such a cavity the fetus will accommodate itself into the largest dimension, i.e. the breech supplemented by the thigh and legs, below and the smaller dimension of the head above.

Placenta praevia which can cause displacement of the presenting part and therefore an abnormal presentation has often been emphasized as an important factor in

the etiology of breech presentation. The cornu-fundal placenta which may play a more important role in determining the fetal presentation has been largely ignored in standard obstetric textbooks and contemporary obstetric literature.

This study aims to confirm previous studies and re-emphasize the role of the

position of the placenta in determining the presentation of a term or near term fetus.

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TABLE I

Group	Number	Percentage	Group	Number	Percentage
Group A	17	85.0	Group B	11	55.0
Group C	11	55.0	Group D	12	60.0
Group E	10	50.0	Group F	11	55.0
Group G	10	50.0	Group H	11	55.0
Group I	10	50.0	Group J	11	55.0

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