

BAD OBSTETRIC HISTORY OF MOTHER AND VARIATION IN SEX-RATIO OF CHILDREN

by

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It is now well established that primary as well as secondary sex ratio favour males; the extent of which varies from population to population.

Influence of various physical and biochemical parameters on sex ratio have been the topic of many a research. These studies include such varied parameters as physique and temperament (Heath 1954); ABO Blood group of parents (Cohen and Glass, 1956); ponderal index of fathers (Damon and Mittal 1964); Hepatitis B surface antigen (Robertson and Sheard 1973; Hesser, Economidou and Blumberg 1975).

Perinatal mortality data shows the sex ratio to be higher among abortuses and still births as compared to live births. (Mc Keown and Lowe '51; Jalousto '52; Tietze '48; Butler and Bonham 1963).

These findings raise the query if this higher sex ratio among abortuses and still births alter the live birth sex ratio among mothers who are prone to such reproductive wastage? Also is there some mechanism of compensation in such mothers, which leads to the sex ratio of their offsprings remaining unaffected and similar to that of general populace or mothers with normal obstetric history?

Material and Methods

The data for present report was collected in the Gynecology O.P.D. of Rajindra Hospital, Patiala. Only those 100 BDH cases were considered which had experienced any one of the following conditions: (Table I).

TABLE I
Distribution of BOH Cases

Category		No.
I	Two or more consecutive abortions	64
II	Two or more consecutive still births	4
III	Two or more abortion as well as still births	13
IV	One abortion followed by a still birth or vice versa	19
Total		100

All these mothers had atleast one child alive. Mothers with RHD (-ive) blood group were also excluded to avoid incompatibility cases.

Results and Discussion

The details of the outcome of pregnancies of these 100 BOH cases are shown in Table II. It shows an increase in the

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TABLE II
Pregnancy Outcome in BOH and Normal Cases.

Category	No. of cases	No. of Pregnancies	Live births			Abortions			Still births		
			No.	%*	Mean \pm SD	No.	%*	Mean \pm SD	No.	%*	Mean \pm SD
BOH	64	277	124	44.76	1.92 \pm 1.02	153	55.23	2.39 \pm 0.81	—	—	—
II+III+IV	36	178	83	46.63	2.31 \pm 1.41	51	28.65	1.42 \pm 1.04	44	24.72	1.22 \pm 4.22
Normal	100	296	296	100.00	2.96	—	—	—	—	—	—

* % of the total number of Pregnancies.

number of live births as compared to the normal cases. The increase in conceptions may be a compensatory mechanism to overcome the loss caused due to abortions and still births.

The next Table III shows that such a compensatory mechanism is inadequate to bridge the gap in sex ratio between BOH and normal cases. The difference in sex ratio being statistically significant at 5% level.

TABLE III
Distribution of Sexes Among Live Births

	Male	Female	Total	Sex-ratio
BOH	79	128	207	61.72
Normal	156	140	296	111.43

$X^2 = 10.4086$.01 P .001 HS
Significant at 5% d.f. = 1

Thus the higher sex ratio of abortuses and still births seem to cause a depletion in the male foetuses resulting in lowering of sex ratio among live births in women prone to such reproductive wastage.

No compensatory mechanism is indicated except increased fertility; but this does not seem to be able to overcome the selective forces working against male foetuses in such mothers.

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