Bracelet creases among the infertile and normal individuals

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ABSTRACT

Infertile and normal subjects were examined in terms of bracelet creases. The creases show significant variation in distribution in two groups. Distal bracelet crease was found to be incomplete in 63.33 per cent cases among infertile subjects, while in normal subjects it is complete in 100.00 per cent cases.

Key Words: Variation. Bracelet Creases. Normal individuals. Infertile individuals.

INTRODUCTION

The history of bracelet creases and palmistry goes hand in hand. Ancient Greek palmists utilized this morphological variable for the prediction of fertility. The bracelet area, a junction of proximal and distal ends of palm and forearm, falls beyond the area of palmar dermatoglyphics and distinctly differs from other skin folds of the fore-arm. Bracelet creases extend quite predominantly towards the pronation of the palm from the stylion to the radiale point (Chaube and Bali, 1976).

Infertility is a human abnormality. To be a mother every woman's dream. Unfortunately for about 10 to 15 per cent of married women in their prime, this dream never comes true. The inability to become pregnant even after many years of married life can affect a woman's self-esteem image and even sexuality. Epidemiological surveys show that the incidence of infertility in couples of child-bearing-age is approximately 14-17 per cent (Howles, 1993).

Bali (1994) described inheritance of bracelet creases. Chaube and Bali (1976) for the first time classified bracelet creases, while Khatoon (1986) studied this in families, twins and mixed populations of Madhya Pradesh, India. In all these studies the data were collected either from the families or from the populations, i.e. from the persons who are having

children. But no such study on bracelet creases is conducted so far among the infertile individuals. Present study is an attempt to examine bracelet creases among the individuals with infertility and without infertility.

MATERIAL AND METHODS

Bilateral bracelet prints were obtained from 120 individuals. Out of these two groups were made. The first group consists of 60 couples among whom either husband or wife was detected as infertile. They were fully diagnosed and certified by the gynaecologists from Southern Cross Fertility Centre, Mumbai and Sultania Lady Hospital, Bhopal. This group was termed as "infertile group". The second group consists of rest 60 individuals, without infertility, who were categorized as "normal group". The infertile group consists of 36 males and 24 females, while the normal group consists of 30 males and 30 females. To obtain the bracelet prints method suggested by Cummins and Midlo (1961) Chaube and Bali (1976) was followed. Bilateral bracelet prints were taken by S. M.

Chaube and Bali (1976) classified bracelet creases on the basis of distal bracelet crease (D), medial bracelet crease (DM) and proximal bracelet crease (DMP). The existing classification (i.e. by Chaube and Bali, 1976) can be further elaborated according to different subtypes, which are as follows:

Main type 'D' :-	du, dr, dumu, dumr, drmr, drmu, dumupu, dumrpu, dumupr, dumrpr, drmupu, drmrpu, drmupr, drmrpr, D, Dmu, Dmr, Dmupu, Dmrpr, Dmupr, Dmrpu
Main type 'M':-	duM, drM, duMpu, duMpr, drMpr, drMpu, DM, DMpu, Dmpr
Main type 'P':-	duMP, drMP, dumrP, drmrP, dumuP, drmuP, duMPP$_1$, drMPP, duMPp$_1$u, drMPp$_1$u, duMPp$_1$r, drMPp$_1$r, DMP, DmuP, DmrP, DMPP$_1$, DMPp$_1$u, DMPp$_1$r

Above combination was followed in the present study for data analysis.

RESULTS AND DISCUSSION

Frequency of incomplete and complete distal bracelet crease is shown for the infertile individuals in Table 1. Females exhibit comparatively higher frequency (58.33) of incomplete distal bracelet crease in both hands than that of the males (52.78). Incomplete distal bracelet crease on one hand also show higher frequency among the females (12.50) than the males

(5.55). However, frequency of complete distal bracelet creases is much higher among the males (41.67) than that of the females (29.17).

Table – 1: Frequency distribution of incomplete and complete distal bracelet creases among infertile individuals

S. No.	Distal bracelet crease	Male		Female	
		Number	Percentage	Number	Percentage
1	Incomplete in both hands	19	52.78	14	58.33
2	Incomplete in one hand	2	5.55	3	12.50
3	Complete in both hands	15	41.67	17	29.17
	Total	36	100.00	24	100.00

In Table 2 distribution of incomplete and complete distal bracelet crease among the infertile and normal subjects has been presented. In this Table the hands of the subjects (male + female) have been pooled. It is apparent that incomplete distal bracelet crease is seen among the infertile subjects only. Among them, the highest frequency (55.00) is seen in case of incomplete distal bracelet crease in two hands. Side by side, incomplete distal bracelet crease in one hand is seen in low frequency (8.33) in this group. However, the frequency of complete distal bracelet crease in both hands is found to be 36.67 in the same group.

Table – 2: Frequency distribution of incomplete and complete distal bracelet creases among infertile and normal individuals

S. No.	Distal bracelet crease	Infertile subjects (sex combined)		Normal subjects (sex combined)	
		Number	Percentage	Number	Percentage
1	Incomplete in both hands	33	55.00	-	-
2	Incomplete in one hand	5	8.33	-	-
3	Complete in both hands	22	36.67	60	100.00
	Total	60	100.00	60	100.00

Frequency distribution of the main types of bracelet creases has been shown in Table 3. Frequency of D type bracelet crease in infertile group (male -55.56, female – 41.67) is higher than that of the normal group (male -28.33, female – 31.67). Frequency of P type bracelet creases also shows marked difference between infertile (male – 13.89, female - 4.16) and normal group (male – 38.33, female – 33.33). M type bracelet creases does not show much

difference between males of infertile group (30.55) and males of normal group (33.33), while females of infertile group (54.17) show marked difference with the females of normal group (35.00). However, the males show considerably higher frequency (13.89) than that of the females (4.16) in case of M type bracelet crease.

Table - 3: Frequency distribution of main types of bracelet creases among infertile and normal individuals

Main types of bracelet creases		Infertile subjects						Normal subjects					
		Male			Female			Male			Female		
		Rt. Hand	Lt. Hand	Rt. + Lt. Hand	Rt. Hand	Lt. Hand	Rt. + Lt. Hand	Rt. Hand	Lt. Hand	Rt. + Lt. Hand	Rt. Hand	Lt. Hand	Rt. + Lt. Hand
D	N	18	22	40	10	12	20	10	7	17	9	10	19
	%	50.00	61.11	55.56	41.67	50.00	41.67	33.33	23.33	28.33	30.00	33.33	31.67
M	N	12	10	22	13	11	26	11	9	20	12	9	21
	%	33.33	27.78	30.55	54.16	45.83	54.17	36.67	30.00	33.33	40.00	30.00	35.00
P	N	6	4	10	1	1	2	9	14	23	9	11	20
	%	16.67	11.11	13.89	4.17	4.17	4.16	30.00	46.67	38.33	30.00	36.67	33.33
Total		36	36	72	24	24	48	30	30	60	30	30	60
		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00	100.00

Frequencies of main types of bracelet creases of both hands and of both sexes have been pooled for infertile and normal groups and the results are furnished in Table 4. It could be seen that frequency of D and P type bracelet creases shows striking difference between infertile (D − 55.00, P − 5.00) and normal group (D − 29.17, P − 35.00), while M type bracelet crease shows lesser degree of variation among infertile (40.00) and normal group (35.83). The chi-square value (χ^2=33.83) for evaluating the nature of variations in the distribution of main types of bracelet creases shows highly significant difference.

Table – 4: Variation in bracelet creases among infertile and normal subjects

Main types of bracelet creases	Infertile subjects (sex combined)		Normal subjects (sex combined)	
	Number	Percentage	Number	Percentage
D	66	55.00	35	29.17
M	48	40.00	43	35.83
P	6	5.00	42	35.00
Total	120	100.00	120	100.00

χ^2= 33.83, df=2, P $\leq$ 0.001, Significant

Thus it reveals that in infertile group the distal bracelet crease is incomplete in 63.33 per cent cases, while in normal group it is complete in 100.00 per cent cases. The creases show significant variation in their distribution among infertile and normal individuals. D and M type bracelet crease is characterized with high frequency in infertile group and low frequency in normal group. However, further intensive study is needed to confirm the findings of the present study.

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