SUMMARY
The approximate juxta-position in time of cardiac and dermatoglyphic differentiation makes it entirely plausible that defects in one may be associated with defects in other more often than by chance. Working on this hypothesis, 316 patients suffering from congenital heart disease, their parents (278), 150 patients suffering from rheumatic heart disease and their parents (64) and 192 normal, healthy and unrelated individuals of various age groups were studied for their dermal features.

A stepwise multiple discriminant analysis was performed using thirty five variables of which only six were entered, after which the additional entries failed to produce a significant increment. For CHD group the highest differentiation was offered by L-For (Fourth interdigital area of left palm). The sequence of variables entered for CHD were L-For, L-B, R-ATA, R-B, L-THR and R-A.

Further quantitative analysis was carried out according to the method devised by Goto et al. (1979a). By this method the dermatoglyphic patterns were analysed quantitatively by calculating the probability of occurrence of each of the patterns. Probability thus calculated of dermatoglyphics of 69.28% of the normal controls belonged to the order of $10^{-11}$. 
Goto et al. (1979a) suggested that those whose dermatoglyphics deviate from this range can be reasonably considered to have some congenital anomalies affecting the dermal patterns. While marked deviations were observed in the CHD group, none of the control groups, such as pCHD, pRHD or RHD showed any substantial departures from the frequency shown by normal control in the range $10^{-11}$ to $10^{-15}$. Only 57.50% of TOF, 56.75% of VSD and 57.78% of miscellaneous group showed the probability range of $10^{-11}$ to $10^{-15}$. A large proportion (86.21%) of PDA were shown to fall in this range, which again is indicative of marked departure from the normals, but along a different path.

The important diagnostic features observed for different CHD groups are as follows:

In TOF, frequency of whorls was predominant when all the 10 digits were considered together. A relative increase in radial loops on finger-II and an increase in incidence of whorls on the IV finger were striking features.

VSD showed a slightly higher incidence of ulnar loops and a relative increase in the incidence of composites on finger IV. Wide atd angles were recorded for VSD.

In ASD, whorls were more frequently observed, especially on finger-IV. A decrease in the incidence of ulnar loops was noticed. Axial triradius showed a tendency for distal displacement.
In PDA a high incidence of ulnar loops (when all fingers were considered together), an increase in the frequency of whorls on finger - II, a predominance of ulnar loops on finger-III, an increase in incidence of whorls on finger - IV and a predominance of loops on finger - V were observed. Wide and angles appeared in relatively higher frequency.

AS showed a relative increase in radial loops especially on finger - II, an increase in ulnar loops, and a relative reduction in composites. Ulnar loops were more frequent on IIIrd and IVth fingers. Tendency towards a distal displacement of axial triradius was observed.

In PS, an increase in incidence of arches and composites, and a decrease in incidence of ulnar loops and whorls was observed. Frequent appearance of composites and an increased frequency of ulnar loops on finger - I, a relative increase of arches on finger - III and composites on finger - IV were noticed. Significant increase in t' triradius was recorded.

To sum up, the results of the present study show some significant departures in the dermatoglyphics of congenital malformations of heart from the normal controls, as revealed by the Goto analysis. The departures are more clearly evident in the specific groups of CHD considered separately rather than in the CHD group taken as a whole. The findings of the study indicate some definitive trends which need to be followed in future research.