SUMMARY AND CONCLUSIONS
In the preceding chapters, an attempt was made to study the nature of distribution of various palmar and finger dermatoglyphic characteristics in the controlled sample and in individuals afflicted with cancer, T.B. and leprosy, to find out variation, if any, between normal and afflicted individuals.

Palmar and finger prints of four thousand individuals were obtained to study association in respect of the features available in these prints between normal and afflicted individuals. Out of these, two thousand palmar and finger prints are of affected individuals and the rest are of individuals who are free from these diseases and are generally healthy. The data pertaining to the cancer relate only to the Jain caste, because of the fact that sufficient number of affected individuals of this caste are available in various hospitals. Cancer has been categorized into four types according to the parts of the body affected by it. Each category consists of a hundred individuals both normal and affected, representing both the sexes in equal proportion. Regarding other diseases, caste-wise sample is collected from Brahman, Thakur and Jain. Quite a number of patients belonging to various ethnic strains, affected with
leprosy and Tuberculosis are found in the various hospitals, and hence the caste-wise sample has been taken into consideration. Each caste is represented by 100 affected and normal individuals representing both the sexes in equal proportion.

The following pages deal with nature of distribution of various palmar and finger dermatoglyphic features among normal and affected individuals.

No distinct difference is noticed regarding various palmar main line formula among the individuals from controlled sample and various types of cancer patients. Similarly, bilateral and bisexual variations on the basis of percentage frequencies of various palmar formulae is statistically not significant.

Considering the percentage frequencies of axial triradii at various positions, no significant difference is observed between normal males and females in comparison with affected individuals with various types of cancer. Regarding bilateral differences on the basis of these frequencies at different positions nothing very distinct is noticed. Similarly, bisexual variations are statistically not significant.

Considering the percentage frequency of various patterns on the II interdigital areas, both among normal and cancer
male and female patients, no significant difference is worth considering. Similar parity is also noticed in the bilateral and bisexual variations regarding this trait.

More or less similar trend is also noticed in the percentage frequencies of various configurations available on the III interdigital area. Here also the normal males and females are not varying to a greater extent from the male and female patients with cancer. Similarly, bilateral and bisexual variations on the basis of percentage frequencies are not statistically significant.

Again much difference is not noticed in the percentage frequencies of various patterns on the IV interdigital areas both between normal males and females, while comparing various types of cancer patients. Statistically not significant bilateral and bisexual difference on the basis of percentage frequencies is fairly evident here.

Considering the percentage frequencies of various patterns on the hypothenar region no difference between normal males and females in comparison with the affected individuals is obtained. The bilateral differences regarding these traits are statistically not significant. Similar trend is also noticed regarding bisexual difference.

The percentage frequencies of different configurations on the thenar region exhibit no distinct differences between
normal and individuals affected with cancer. The bilateral and bisexual differences are also statistically not significant on the basis of these traits.

The mean a-b ridge count is higher in the normal males and females than in the affected individuals except for males and females with leukemia. Significant difference in the mean a-b count on the left hands is noticed among normal and male patients of lung cancer. However, the other individuals are displaying statistically insignificant variations. Bilateral and bisexual differences are statistically not significant on the basis of a-b ridge count.

For b-c ridge count slightly higher values are observed on the left hands of the males and females affected with cheek cancer than the normal individuals, while comparing the normal with the affected individuals, it is noticed that only leukemia females represent statistically significant difference in the mean ridge counts on the right hands. Again the females with cheek cancer and leukemia are displaying significant difference from normal individuals in the mean values of b-c ridge count on the left hands. Statistically not significant bilateral and bisexual differences are worth considering on the basis of mean values on this interdigital area.

As regards c-d ridge counts, it is noticed that the
mean values on the left hands among males and right and left hands of female patients of throat cancer and leukemia represent higher mean values than the controlled sample. However, the male patients with lung cancer represent significant difference in the mean total ridge counts on the right hands. The males and females with cheek cancer display statistically significant difference from controlled sample on the basis of mean ridge counts on the left hands. The bilateral and bisexual variations are not statistically significant regarding mean values of c-d ridge counts.

The males with throat cancer exhibit higher mean values than the males from controlled sample. Again, the females with leukemia represent higher mean a-d ridge counts than the normal individuals. Male and female patients of other types of cancer are observed to have lesser counts than the controlled sample. The mean values on the right hands among cheek and lung cancer patients of both the sexes display significant difference when compared with the mean values on the same hands in the normal individuals. Again significant difference is observed among female patients with cheek and lung cancer regarding the mean values on the left hands when the comparison is made among normal and affected individuals. Statistically insignificant bilateral and bisexual differences are noticed regarding mean total a-d ridge counts.

After studying palmar dermatoglyphic features among
normal and various types of cancer patients, the finger ball
patterns are also included to study variation, if any, between
normal individuals and various types of cancer patients.

The percentage frequency of whorl represents no
significant difference among normal and patients of various
types of cancer. Bilateral and bisexual differences regarding
this frequency are statistically not significant.

Again the frequency of arch represents no significant
difference among normal males and females with the patients
of various types of cancer patients. Here also statistically
not significant bilateral and bisexual variations are noticed
regarding this trait.

The frequency of radial and ulnar loops represents no
distinction among normal and cancer males and females.
Similar parity is also noticed regarding bilateral and
bisexual differences.

The similar trend is also noticed in the percentage
frequencies of C.P.L., L.P.L. and twin loop, both among
normal and cancer males and females. Here also bilateral
and bisexual variations in the frequencies of these pattern
types are statistically not significant.

After studying the nature of distribution of various
palmar and finger dermatoglyphic features among normal
individuals and the patients of various types of cancer, these features are again studied among T.B. patients to find out variations, if any, between normal and affected individuals.

The percentage frequencies of various palmar main line formulae among normal individuals of Brahman, Thakur and Jain represent no difference from the male and female patients with T.B. The bilateral difference on the basis of these frequencies is not statistically significant. More or less similar trend is also noticed regarding sexual variations.

The axial triradii at various positions represent no distinct difference on the basis of percentage frequencies, while comparing males and females from controlled sample with affected individuals. Bilateral difference among all the ethnic strains both normal and affected individuals is not statistically significant. Moreover, no bisexual difference is noticed regarding the percentage frequencies of axial triradii at various positions.

Considering the distribution of various pattern types on the II interdigital areas, it is noticed that among the Brahman, Thakur and Jain both normal and T.B. male and female patients no significant difference is observed. The bilateral and bisexual variations between normal and affected
individuals of different ethnic strains are also statistically not significant on the basis of percentage frequencies.

Similar trend is also noticed regarding various configurations available on the III interdigital areas on the basis of percentage frequencies among all the ethnic strains. Here also the normal males and females are not varying to a greater extent from the T.B. patients. Similarly, the bilateral and bisexual differences are not statistically significant.

Again much difference is not found in the percentage frequencies of various pattern types on the IV interdigital areas among normal and T.B. patients. The bilateral and bisexual variations are not statistically significant.

The percentage frequency of various pattern types on the hypothenar areas among all the ethnic strains both normal and T.B. male and female patients does not exhibit significant difference. Similar parity is also noticed in the bilateral and bisexual variations regarding these traits.

More or less similar trend is noticed in the percentage frequency of various configurations on thenar regions. Here also the bilateral and bisexual differences are not statistically significant.

Further an attempt has been made to study variations
regarding the dermatoglyphic features among normal and T.B. patients, certain metrical features are also included in the present study. The mean a-b ridge counts on both the hands are higher in the T.B. patients than the controlled sample of different ethnic strains. The bilateral variations in the mean values of various interdigital areas are not statistically significant. Bisexual differences regarding mean a-b ridge count among normal and T.B. males and females are statistically not significant.

For b-c ridge counts striking difference is noticed between normal and T.B. male and female patients of different ethnic strains. The bilateral difference is not statistically significant. The Jains from controlled sample represent statistically significant bisexual difference for b-c ridge counts. The Thakurs and Brahman with T.B. are also exhibiting significant bisexual difference, while comparing the ridge counts on the right with right and left with left hands of normal and affected individuals of different ethnic strains. It is found that the b-c ridge counts display significant difference among Brahman and Thakur males on the right hands. The Brahman and Thakur males and females represent same statistically significant results for mean total b-c ridge counts on the left hands.

The affected females among Brahman and Thakurs exhibit higher mean values for c-d ridge counts on both the hands.
than the normal females. The bilateral difference is not statistically significant. Only affected Brahman and Thakurs are displaying significant bisexual variations. The significant difference is noticed among Brahman and Jain males, while comparing the mean values for c-d ridge counts on the right hands of normal and affected individuals. The normal Brahman females are found to differ from affected females regarding the mean values for this interdigital area on the right hands. Again, the normal and affected Brahman are observed to differ regarding the mean total c-d ridge counts on the left hands.

The Brahman and Jain males with T.B. are observed to have greater mean a-d values on both the hands than the normal individuals. The bilateral variations are not statistically significant. For bisexual variations, it is observed that the controlled group of all the ethnic strains shows significant variations. The normal and affected Brahman males and Jain males and females, both normal and affected are observed to differ significantly regarding the mean values on the right hands. Again, significant difference is observed among Brahman males and Thakur males and females in comparison with the affected individuals on the left hands regarding this trait.

The finger ball dermatoglyphic features are also included
in the present work to investigate variations regarding these traits.

The percentage frequency of whorl represents no significant difference among normal and affected individuals of various ethnic strains. Similarly bilateral and bisexual differences are statistically not significant.

No distinct difference is noticed regarding arches among the individuals from controlled sample and T.B. patients of different ethnic strains. The bilateral and bisexual differences are not statistically significant.

The percentage frequency of C.P.L., L.P.L. and twin loop exhibits no significant difference among normal and affected individuals of different ethnic strains. Similarly, bilateral and bisexual differences are statistically not significant.

The frequency of radial and ulnar loops represent no distinction among normal and T.B. males and females of various ethnic strains. Similar parity is also noticed regarding bilateral and bisexual difference. The various palmar dermatoglyphic features are dealt among the individuals from controlled sample and the patients with leprosy to find out affinity, if any, among normal and affected individuals.

No distinct difference is noticed regarding various
palmar main line formula among the individuals from controlled sample and leprosy patients of various ethnic strains. Similarly, bilateral and bisexual variations on the basis of percentage frequencies of various palmar formula are statistically not significant.

Considering the percentage frequencies of axial triradii at various positions, it is noticed that no significant difference is observed among normal males and females in the comparison with leprosy males and females belonging to various ethnic strains. Regarding bilateral difference on the basis of these frequencies of axial triradii at different positions nothing very distinct is noticed. Similarly, bisexual variations are statistically not significant.

Considering the percentage frequency of various patterns on the II interdigital areas both among normal and leprosy male and female patients of different ethnic strains no significant difference is worth considering. The bilateral and bisexual differences are also not significant.

More or less similar trend is also noticed in the percentage frequencies of various configurations available on the III interdigital areas. Here also the normal males and females are not varying to a greater extent from the male and female patients with leprosy belonging to various ethnic strains. Similarly, bilateral and bisexual variations on the
basis of percentage frequencies of various pattern types are not statistically significant.

The great difference is not available in the percentage frequencies of various pattern types on the IV interdigital areas both among normal males and females while comparing with leprosy patients. Statistically not significant bilateral and bisexual differences on the basis of percentage frequencies are fairly evident here.

Considering the percentage frequency of various pattern types on the hypothenar areas no significant difference is noticed among normal males and females in comparison with leprosy patients belonging to different ethnic strains. The bilateral and bisexual differences are not statistically significant regarding these traits.

On the thenar region the percentage frequencies of various configurations exhibit no distinct difference among normal and leprosy patients. The bilateral and bisexual differences are not distinct on the basis of these traits.

Certain quantitative palmar dermatoglyphic features are also included in the present study to study variation, if any, among normal and affected individuals. The males from controlled samples display higher mean values for a-b ridge counts on both the hands than the male patients with leprosy
of different ethnic strains. The bilateral difference is not statistically significant. The bisexual variations among normal and affected individuals of different ethnic strains regarding a-b ridge counts show significant difference except among Brahman and Thakur with leprosy. The mean a-b ridge counts on the right hands exhibit a significant difference when comparison is made between normal Brahman with leprosy Brahman males and Thakur males from controlled sample with leprosy males of the same ethnic strain. Similarly, the mean counts on the left hands among normal and affected Brahman males display significant difference.

For b-c ridge counts the normal males and females of various ethnic strains are not differing significantly from leprosy patients. The bilateral difference is also statistically not significant. Regarding bisexual difference only normal and affected Thakur are exhibiting statistically significant results. The Brahman males from controlled sample and male patients with leprosy of the same ethnic strains are exhibiting distinct difference on b-c ridge counts on the left hands. Again significant result is obtained while comparing Brahman and Thakur females from controlled sample with affected females of these strains, for b-c ridge counts on the right hands. The normal Brahman females differ significantly from the female patients of leprosy of the same ethnic strain on the basis of mean b-c
ridge counts on the left hands.

Regarding c-d ridge counts the much difference is not seen among controlled and leprosy patients of different ethnic strains. The bilateral difference is not statistically significant. The Brahman males and females from controlled samples exhibit significant bisexual variations. A distinct difference is manifested between normal Thakur males and male patients of leprosy of the same ethnic strain regarding mean values of c-d ridge counts on the left hands. The normal Brahman females are also displaying a significant difference from the affected Brahman females regarding mean total c-d ridge counts on the right hands.

The mean total a-d ridge counts is greater on both the hands among the males from controlled sample than among the affected individuals of different ethnic strains. Bilateral difference is not statistically significant. No significant bisexual difference is noticed in the mean values of a-d ridge counts except among controlled persons of different ethnic strains. Only the Brahmans from controlled samples are exhibiting significant difference from the affected males while comparing the a-d ridge counts on the left hands.
Finally, the finger dermatoglyphic characters are also taken into consideration to understand their nature of distribution among normal and affected individuals of various ethnic strains.

The whorl represents no significant difference in the percentage frequency among normal and leprosy patients of different ethnic strains. The bilateral and bisexual variations are not differing significantly.

More or less similar trend is also found regarding the frequency of arches. Here also the normal persons are not differing to a greater extent from the leprosy patients on the basis of percentage frequencies. Similarly, the bilateral and bisexual variations are not statistically significant.

The frequency of radial and ulnar loops represents no distinction among normal and leprosy patients of different ethnic strains. Similar parity is also noticed regarding bilateral and bisexual differences.

The similar trend is also noticed in the percentage frequencies of C.P.L., L.P.L. and twin loop, both among normal and leprosy males and females. Here also bilateral and bisexual variation in the frequencies of these pattern types is statistically not significant.
BIBLIOGRAPHY