CHAPTER - IX

CONCLUSION
There are many variabilities which leads an individual to remain, childless or infertile. Infertility in an individual could be due to inability to achieve pregnancy within a stipulated period of time, usually stated as one year. Infertility in male as well as female individuals could either be on account of one individual or both may participate and be incompetent to the factor. Clinically infertility is a unique condition in which both husband and wife are to be considered, as both may have factors contributing to these conditions.

The demography of childless individuals is obviously related to many socio-economic, cultural, nutritional, environmental factors. If one remains unbalanced, it creates a great unavoidable hamper in the individual's life. The childlessness or infertility in an individual brings about aberrant attitude towards ones life. Being infertile or childless an individual usually avoids to discuss on such matters, no doubt, it must be, certainly, hurting the feelings, as most
of these type of individuals develop a peculiar complex within themselves, and, hence hesitate, to cooperate in such embarrassing situations; on the contrary an interviewer remains to be in a peculiar circumstance, personally.

Socio-demographic variabilities of the interviewed individuals with regards, to income, social aspect, age at which they were married and the duration of the marriage, had to be taken into an account of. Age at marriage in particular, plays a very important role, which leads, an individual, to be either, fertile or infertile. Observations on many score, have proved, late marriages to be barren, whose ever, responsibility may, it be, which can only be, otherwise proved, partially, by clinical diagnosis and wholly by karyotyping.

Duration of number in years, specifically, more than 4, indicates in an individual a serious problem which ought to be guarded fast. Couples married early in their lives usually have better prospects for offspring, in case, of, otherwise, it could be due to some serious clinical problem, which could mount to any weightage.

Consanguinity in marriage has been observed on many occasions to have weaker gene frequency in the consequent generation. There had been certain marriages
amongst the observed sample who had, had, performed such type of marriages, which could also remain responsible, for the barren marriage in them.

Deficiency of vitamins and inorganic nutrients in the quality of dietary habits have been reported to correlate with infertility in both, male and female individuals. Hence its relation with clinical infertility has been dealt individually amongst male and female samples.

Fertility measures could also be checked by various addictions taken into practice in this part of the State, on account of bidi industry, and, poverty amongst certain individuals. Drug addiction has been, by many workers correlated with chromosomal aberrations, which could also lead an individual, infertile. Whether correlation, existed or not, an observation has been made on this particular aspect.

The present study deals with an assumed 454 childless couples from 12 wards of Sagar. Of these, 166 males and 289 female individuals were available at the time of interview. The socio-demographic variabilities of these individuals were made a special not of, so as to analyse the cause of their being childless.

At the time of interviewing these individuals, a special care was taken to note the clinically diagnosed
infertile individuals, who were specially made a note of. Only 133 males and 209 females, revealed the variabilities existing in them, which was due to clinical cause.

Out of 133 individuals 21 had severe clinical aberrations like gonococcal, syphilis, trauma, and, hence these conditions obviously eliminated them from being karyotyped. The female numbered 209; invariably they suffered either from primary or secondary infertility. Primary infertility conditions remained obvious hence they were too eliminated from the total present sample. The females suffering from secondary infertility was considered, whatsoever conditions they proved of, for the present study. A final sample of 112 couples along with 8 female individuals were karyotyped, the sample was rather in an unbalanced equation on account of incooperative attitudes, of those male individuals whose females were extra.

Three variability was to be made a note of, while processing the laboratory detection. Chromosomal constituion in both quantitative and qualitatively measures on the basis of spontaneous abortions and primary amenorrhea, in the females, and, infertility or subfertility in the male individuals. A point here has to be made very clear regarding primary and secondary amenorrhea. Primarily, the primary amenorrhea though, a primary infertility, was considered for the present
study, on account of chromosomal aberrations which normally exists in such effected conditions. Secondly, secondary amenorrhea was, though, not a part, of the present study, since, three samples of this condition were available, hence, karyotyping was performed for them also.

The 112 infertile males were conventionally stained along with C and G banding. An observation of at least 5 metaphase revealed the probability of the affected conditions. Only 2 male individuals revealed chromosomal constitution of XXY, an azoospermic condition, and, XYY, an oligospermic condition, which lead these individuals to be infertile or subfertile, respectively. The individual with XXY chromosomal constitution showed, slight mental retardation and variation in the secondary sexual character, with normal libido, his chromosomal constitution was of a pure type and not of mosaicism.

The second individual with chromosome constitution as XYY depicted tallness, but otherwise was quite normal on mental aptitude. No mosaicism was observed of this sample also.

The rest of the sample were normal with regards to the chromosomal constitution which was 46,XY, in them.

The females on the other hand were 120 in totallity. They were also karyotyped; conventional,
C and G banding was performed which revealed 4 individuals to be carrying a chromosomal constitution of trisomies, which was a cause of spontaneous and recurrent abortions in the present study.

The trisomies of E and G group was observed in the present study. The frequency of E chromosome group was higher as compared to G group, as 3 individuals were observed to have the E group chromosomal constitution, while only 1 chromosome of the G group, lead the present sample to experience spontaneous abortion.

The rest of the females were observed to be of normal karyotype. Infertility in the female individuals due to amenorrhea, whether primary or secondary was also considered in the process of karyotyping.

There were two female individuals suffering from primary amenorrhea, though, the cause in them was the uterine defect, yet, they were karyotyped to observe, an aberration in their chromosomal constitution if at all it occurred, which was later found to be normal, that is, 46,XX.

Secondary amenorrhea patients numbered 3, their chromosomal constitution was also 46,XX. Hence nothing much was observed in the case of amenorrhea.

Photomicrography was performed for the C and G banded, along with, a few of conventionally stained
slides. Due to limited facilities in the Department the C and G banded slides were not of a good quality. The photomicrography at a magnification of 950 could only be managed at Forensic Science Laboratory. Hence the photographs of C and G banded patterns were not as clear as the ones of conventionally stained.

Finally a total of 6 individuals were observed to have chromosomal anomalies which probably lead them to remain infertile. Aberrations in the numerical constitution of the autosomes was observed in the 4 female individuals, while the 2 male individuals revealed a sex chromosomal numerical constitution, which lead them to be infertile or subfertile.

From the present study done it can finally be concluded that infertility in an individual can also be caused due to chromosomal aberrations, apart from clinical variabilities, hence observed.