Sex chromatin frequency as an indicator of the hormonal status

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The present study was conducted on three groups ofhuman female volunteers at different phases of hormonalactivity.The first group included 30 adult females aging 25-35 years,which were subdivided into three equal subgroups :-Subgroup I: included the normal menstruating adult femalesduring the menstrual phase (reference group).Subgroup II: included ten adult normal menstruating femalesduring the proliferative phase of the menstrual cycle.Subgroup III: included 10 adult normal menstruating femalesduring the luteal phase of menstrual cycle.The second group included 10 young girls aging 6-10 years.The third group included 10 menopausal women aging 55 to75 years.Three samples were taken from each female:-l-Buccal smear to study the buccal smear cells for the numberof sex-chromatin positive cells.2-Blood film to study the blood leucocytes for drumstick.3-Blood sample for hormonal assay.-96-Summary & ConclusionThe results of the present study revealed the following:-1- Sex steroid hormones have a definite effect on the frequencyof X-chromatin.2- The percentage of X-chromatin varies according to the levelof sex steroidal hormones during normal menstrual cycle.3- During pre puberty, a low level of X-chromatin was recordedwith respect to -mean frequencies in normal adult females.4- In menopausal women also, the X -chromatin frequency waslower than in the normal and no fluctuation of X chromatinfrequency was recorded during the period of observation.The present study may provide an evidence that the Xchromatinfrequency was affected by the ch~ges in thehormonal status but further studies are necessary to establish themechanism by which the steroid hormones affect sex-chromatinfrequency.