

LETTER TO THE EDITOR

**PLASMA LEVELS OF ESTRADIOL AND PROGESTERONE DURING NORMAL
MENSTRUAL CYCLE IN LANGUR MONKEY**
(*PRESBYTIS ENTELLUS ENTELLUS*)

(Received on March 14, 1980)

Sir,

Langur monkey with a straight cervical canal and non-tortuous fallopian tube as in women is supposed to be a most suitable model for the study of reproductive physiology in human female (2). Langur shows a menstrual cycle similar to that of human

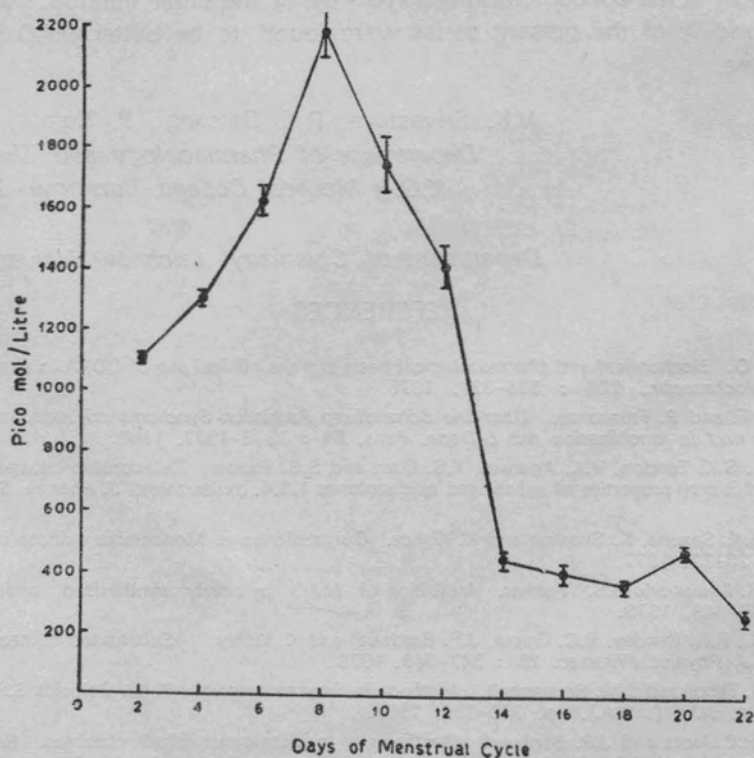


Fig. 1 : Plasma levels of estradiol in female langur monkeys.

and rhesus monkey with a range of 21–30 days and mode of 22 days (1). However, not much is known about the plasma hormonal patterns of this species. This study deals with the plasma levels of Estradiol and Progesterone in Langur monkeys during their normal menstrual cycle.

Out of the 10 sexually mature female Langurs of our primate colony, 7 were selected for this study, weighing 10–12 kilograms and having a record of 3 regular menstrual cycle of 24 ± 2 days prior to initiation of this study. They were individually maintained in the Institute's primate colony with a temperature of $25^\circ\text{C} \pm 2^\circ\text{C}$.

The first day of menstruation was designed as day one of cycle. Blood samples usually 4 to 5 millilitre were drawn from the femoral vein in an heparinised syringe on alternate days at 11 A.M. throughout the menstrual cycle from day 2 to day 22. Blood was centrifuged, plasma separated and was stored at -20°C until assayed.

Plasma Estradiol and Progesterone were estimated by the method and reagents provided by the World Health Organisation under their matched reagent programme (3).

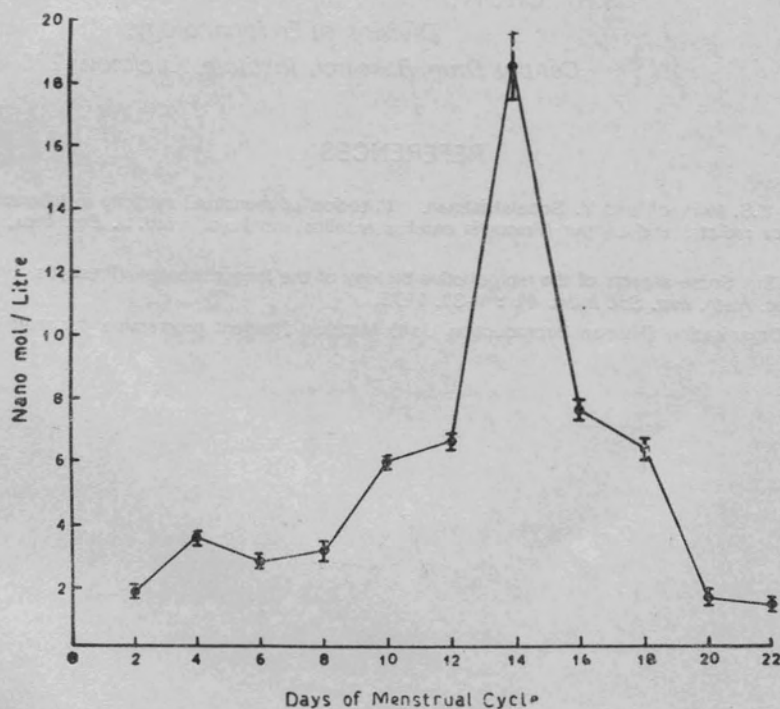


Fig. 2 : Plasma levels progesterone in female langur monkeys.

The hormone levels presented in Figures show that the follicular phase in langur monkeys is characterised by a rapid increase in the levels of estradiol. Progesterone levels also rise gradually. The estradiol peak occurs between days 8-10 of the menstrual cycle. The estradiol levels fall within 48 hours of the peak and then a significant rise in progesterone levels takes place. Peak progesterone levels are observed on day 14 of the menstrual cycle indicating a typical hormonal pattern of the luteal phase. The premenstrual phase before the onset of menstruation seems to be characterized by a decreasing levels of progesterone and estradiol. The menstruation takes place normally between day 22-24 of the menstrual cycle.

ACKNOWLEDGEMENTS

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