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A Contraception has been employed for thousands of years as a means of allowing sexual gratification without consequence of pregnancy. In today's world contraception is gaining importance in combating evils of over population.

Earlier experiments in the animals had shown that oestrogens are able to prevent pregnancy when given post coitally. Later on, difficult mass administration of oral pills as well as their side effects led to synthesis of various contraceptive compounds and one of these is centehroman.

Centehroman, 3, 4 trans-2, 2-Dimethyl-3, Phenyl-4-(p-(3-Pyrrolindinoethoxy) phenyl)-7-methoxycchroman, a non steroidal compound with oestrogenic, antioestrogenic and antiprogestational activity, has been found to have antifertility activity as a post coital contraceptive in animals.
It is a colourless, crystalline substance of melting point 163°C and molecular weight 493.5.

The compound showed oestrogenic (uterotrophic and vaginal cornification), anti-oestrogenic and antiprogesterational properties. Antiprogesterational properties was observed in clauberg assay in rabbit in counteraction of decidualization and in alternation of biochemical constituents of uterus in mated or delayed implantation. On the other hand, Kumar et al observed that centchroman did not accelerate the metabolism or elimination of progesterone nor did it decrease but rather increase the uptake of progesterone by target tissue in rats. When administered to normal women during luteal phase it failed to prevent, propro or post-
pone the onset of menses which would indicate the drug failed to counteract the effect of endogenous progesterone.

A single oral administration of compound within 24 hrs of coital act causes 100 percent prevention of pregnancy in rats, mice (1.25 mg/kg), dogs and rhesus monkey 2.5 mg/kg). In rats and mice a single oral administration on any one of day 1–3 of pregnancy prevents implantation. Minimum effective dose in days 1–5 regime is .25 mg/kg. Fertility returns promptly following withdrawal of treatment. Reviews of the anti implantation properties of non steroidal antifertility agents possessing weak oestrogenicity and antioestrogenicity show that only potent oestrogens (eg: Diethyl stilboestrol) or a weak oestrogen with potent antioestrogenic and some progestational activities are effective in preventing conception in monkeys, none of non steroidal weak oestrogens with potent antioestrogenicity are effective in monkey. A progestogen with potent antioestrogenic property (Mergestrol) has shown post coital
antifertility activity in human.

Centchroman causes some foetal resorption in rats when administered pre or post implantation. Nevertheless, no abnormal genital development or teratogenicity has been found in the foetus and their post natal sexual development and subsequent fertility potential remains unpaired.

Centchroman had not shown any abnormal toxicity in rats and monkeys on chronic administration. The pharmacological profile showed anti inflammatory activity, incomplete adrenergic blockade, non specific spasmyloytic activity and a mild anorexigenic effect at high doses.

Antifertility action of centchroman seems to be at level of both fallopian tube and uterus. Since there is arrest of egg development and marked inhibition of decidua formation. The transport, fertilization development and viability of majority of ova is not disturbed. Since implantation occurs in centchroman treated rats superimposed with both progesterone and oestrogen. Neither of these compound perse
induce implantation. Thus centchroman appears to exert its antifertility effect by interfering with action of both oestrogen and progesterone.

Prevention of implantation with added property of causing arrest of ova development make this compound a fairly potent contraceptive.

It is, therefore, decided to undertake hormonal contraceptive evaluation of this compound in normal healthy females.