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GENERAL DISCUSSION

Clark. There are just a couple of remarks and a couple of questions I wanted to ask. I was very interested in Dr. Beyer's comments, if you classify animals into 2 groups according to whether or not they are spontaneous ovulators or copulatory induced you have the cats, rabbit and so on, in the copulatory induced group, primates and rats in the spontaneous group. Your data and also the data quoted by Dr. Taylor he was talking about cats and you were talking about rabbits most of the time. Do you see any relationship between the facts that they may be totally dependent upon copulatory activity for the induction of ovulation?

Beyer. As you said, rabbits and cats are reflux ovulators and both of them respond with sexual behavior to the administration of estrogen, therefore not requiring progesterone as other species. These are species which usually are in estrus for prolonged periods, in contrast to spontaneous ovulators like the rat or guinea pig, the cow, etc. which have short periods of heat; the duration of heat in these species might be modulated by progesterone.

Clark. Do you know for sure of any other copulatory induced ovulators that estrogen alone will do the behavioural thing?

Beyer. No.

Clark. The only comment I wanted to make which does not necessarily pertain to your work is the use of non-steroid anti-estrogen such as the MER-25, although MER-25 is the weakest one of all nafaxidine CI 628 clomiphene and so forth. Especially under certain conditions they have some very peculiar properties that they manifest estrogen that surpasses estrogen itself and thereby cannot be interpreted as anti-estrogens. And have led to some very peculiar behaviour observations, at least that's what Roger Gorski tells me. It should always be kept in mind that they have long-lasting estrogenic potency in a peculiar compound.

Beyer. This is true for several effects besides behaviour. However, MER-25 blocks lordosis behaviour as shown by several groups, but you don't block male sexual behaviour.

Taylor. As I mentioned before, the combined oestrogen-progestin preparation induced marked sex behavioural changes in treated cats, but in our experience synthetic progestins such as norethisterone acetate and 'Gestanin' (allyloesternol) have a similar but not so dramatic effect.

Clark. Weren't those estrogen-primed animals?

Taylor. No, they were intact, untreated normal female cats.

Martini. The point is that some of these steroids are metabolized through an estrogenic pathway. This happens to be the case for norethisterone. So, if you are giving a progestational agent which is metabolized through an estrogenic pathway in reality you are giving estrogens to your cats.

Taylor. I agree entirely. I just wanted to stress the point that these synthetic progestins, which have some oestrogenic activity, can trigger off a sexual behavioural response.

Martini. I wanted to address a question to Dr. Jones. How do you get rid of vasopressin. Actually vasopressin affects ACTH release. As far as I know vasopressin is still the best CRF, or corticoliberin.

Jones. We have separated our CRF from ADH on a sephadex column. We have also measured the ADH in our medium and in the amounts present it does not release ACTH in our assay system. Neither does the ADH potentiate the activity of our CRF when the two substances are injected simultaneously.

Martini. Did you expose your extract to thioglycolate, to see whether your CRF contains disulfide bridges?

Jones. Yes, we have, but results were dubious.