Oestrogen provocation test

	Oestradiol		LH		FSH	
	base	peak	base	peak	base	peak
Group A	10.1 ±1.3	71.3 ±11.9	6.6 ±0.9	27.2 ±3.2	11.8 ±1.1	14.6 ±2.4
	**		**			
Group B	5.6 ±1.5	58.1 ±5.3	4.4 ±1.2	18.9 ±4.3	7.9 ±1.7	9.5 ±1.8
	**		**			

(mean ± SEM)
** $P < 0.01$
* $P < 0.05$

without, however, exceeding levels related to the administration of oestrogens. This test seems useful for evaluation of the functional capacity of the hypothalamic-pituitary axis, thus permitting not only a more precise diagnosis, but also the administration of more precisely directed therapy.

57. The effects of mid-cycle transient hyperprolactinaemia, induced by metoclopramide (maxolon), on the menstrual cycle, R. FLEMING[1], A. CRAIG[2], D.H. BARLOW[1] and J.R.T. COUTTS[1], [1]Department of Obstetrics and Gynaecology, University of Glasgow, Glasgow Royal Maternity Hospital, Rottenrow, Glasgow, G4 0NA, and [2]Clinpath Services Limited, Lane End Road, High Wycombe, Bucks, U.K.

Pharmacologically (sulpiride) induced hyperprolactinaemia for one month has been shown to cause luteal insufficiency (1) in women. Idiopathic transient hyperprolactinaemia (T↑PRL) occurring at mid-cycle, has been associated with a short luteal phase (2). Consequently we studied the effects of pharmacologically induced T↑PRL at mid cycle alone. Daily plasma samples were taken from 7 volunteer women, with a normal menstrual history, throughout two complete cycles — a control cycle, followed by a cycle in which metoclopramide (10 mg three times/day) was taken for seven days around the estimated mid-cycle to induce T↑PRL. Each sample was assayed for oestradiol, progesterone, FSH, LH and PRL by specific radioimmunoassays. Control and comparative experimental samples from each subject were assayed in the same assays to eliminate inter-assay variation. Preliminary results indicate that consistent luteal insufficiency was not induced, and that luteal phase length was not significantly reduced by this treatment.

References

1. Delvoye P., Taubert H.D., Jurgensen O. et al.: C.R. Acad. Sci. 279 (1974) 1463-1466.
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58. Relationship between hormonal status and clinical response in human fibrocystic disease, F. FRAIOLI, V. LAVECCHIA, F. VITA, F. SANTORO, C. ORZI and L.R. MARCELLINO[1], Istituto Clinica Medica V, Università di Roma and [1]Centro Tumori "E. Medi" del Comune di Roma, Rome, Italy

The relationship between serum prolactin and benign breast tumour, mainly fibrocystic disease, has not yet been fully elucidated and suitable treatment therefore remains to be established.

During the last four years we have studied 987 women with fibrocystic disease. Diagnosis was based upon the clinical picture and xerography and/or mammography. Of these patients 890 were aged between 30 and 45 years; the remainder were younger. 92% had normal menses or slight oligomenorrhoea, 8% had amenorrhoea.

Blood samples collected in all menstruating patients during the early, middle and late phase of the cycle (or every 7 days for 3 weeks in the non-menstruating patients) were assayed for serum prolactin, 17β-oestradiol, progesterone and gonadotropins by specific and sensitive RIA. Results were validated in terms of intra- and inter-assay variations not exceeding 8% and 11%, respectively.

Mean serum prolactin levels (our normal range during the menstrual cycle ranges between 4-16 ng/ml) in the present series were elevated in 67% (25 ± 6 ng/ml SD), normal in 28% (9 ± 5 ng/ml SD) and low in 5% (4 ± 2.5 ng/ml SD).

Values for the other hormones studied varied considerably and could not be correlated with these findings.

Patients were then given treatment with one of the following schedules: vitamin A and E, progesterone, HCG, α-methyl-diol and, more recently, 2-Br-α-ergocryptine. Hormonal status and clinical improvement, however, showed no correlation, not even in the high prolactin patients given 2-Br-ergocryptine.

59. Endocrinological and therapeutic remarks of hyperprolactinaemic amenorrhoea, A. VOLPE, C. BARBIERI, R. PELLATI, E. DELLA VECCHIA, A. GRASSO, G. MACCARRONE and V. MAZZA, Department of Obstetrics and Gynecology, University of Modena, via del Pozzo, Modena, Italy

In the last two years, in our department, of 397 amenorrhoeic patients, 86 (21,7%) were found to be hyperprolactinaemic. In 13 cases sella x-ray showed a pituitary adenoma. Basal PRL, FSH, LH, E2, TSH, T_3, T_4, were measured and the GnRH (100 µg i.v.), TRH (200 µg i.v.), and sulpiride (100 mg i.m.) dynamic tests were performed. The Nominphensin test (200 mg os) and nyctohemeral variation of prolactin were evaluated in only five cases. None of the tests performed was found useful for distinguishing between pituitary adenoma and functional hyperprolactinaemia.

Surgical treatment, performed on five patients, led to a decrease in prolactin levels but did not modify the clinical symptoms.