much debate and experimental work and this can only be of benefit to the subject and, indeed, medicine as a whole.

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CORTICOTROPIN-LIKE PEPTIDES OUTSIDE THE PITUITARY

SIR,—Dr Larsson's interesting paper[1] describing C-terminal corticotropin (A.C.T.H.)-like peptides in the gut and pancreas lacks adequate control data. The A.C.T.H.-like immunoreactivity was localised to these cells by the use of an antiserum raised against "purified" porcine A.C.T.H. (α_p^{1-39}-A.C.T.H.) and the immunoreactivity was abolished (predictably) by absorption of the antiserum with the same purified porcine A.C.T.H. but not with synthetic α^{1-24}-A.C.T.H. Our experience with antisera raised against purified porcine A.C.T.H. is that it may provide better antisera to other pituitary peptides than to A.C.T.H. itself, presumably due to contamination of the immunogen. The immunoreactivity described by Larsson could, indeed, be due to contamination by any cellular peptide/protein. Since synthetic α^{1-39}-A.C.T.H. is freely available it should be used to provide the only valid control.

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**This letter has been shown to Dr Larsson, whose reply follows.—ED.L.

SIR,—The point raised by Dr Lowry and Dr Rees is valid. However, as I reported, highly purified $^{1-39}$A.C.T.H. also abolished staining. Absorption studies with synthetic $^{1-28}$A.C.T.H. (Ferring, Sweden) have been done on dog and cat antropyloric mucosa. When the antiserum is absorbed against this synthetic peptide, all staining of the antropyloric cells is abolished. Absorption with synthetic $^{1-24}$A.C.T.H. is without effect, showing that the staining observed is due chiefly to a sequence corresponding to $^{24-28}$A.C.T.H. in the dog and cat antropyloric cells, a fact that strongly supports the suggestions I made.

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LARS-INGE LARSSON

PLASMA-SECRETIN DURING FASTING

SIR,—Henry et al.[2] reported that plasma-secretin rose during fasting, suggesting that secretin may have a role in metabolic regulation. This finding implies that during fasting pancreatic bicarbonate would also rise. Using a sensitive and specific radioimmunoassay,[3] we measured plasma-secretin in eight healthy subjects undergoing 24 h of fasting with simultaneous measurement of basal bicarbonate in duodenal juice during the last hour. Plasma-secretin levels after 24 h (mean 1·9 pmol/l, S.E.M. 0·41) did not differ from the basal level and the bicarbonate output was 0·7 (0·25) mmol/h. Plasma-free-fatty-acids, total ketones (Prof. K. G. M. M. Alberti), and pancreatic glucagon were raised while glucose and insulin were depressed, consistent with the metabolic profile of fasting. Our data do not support the contention that secretin is raised by fasting. In accord with the view that secretin is important in the modulation of pancreatic bicarbonate in man,[4] low concentrations of plasma-secretin were observed during low levels of bicarbonate output. Products of lipolysis have been shown to interfere with some secretin assays,[5] which is one possible explanation for this discrepancy.

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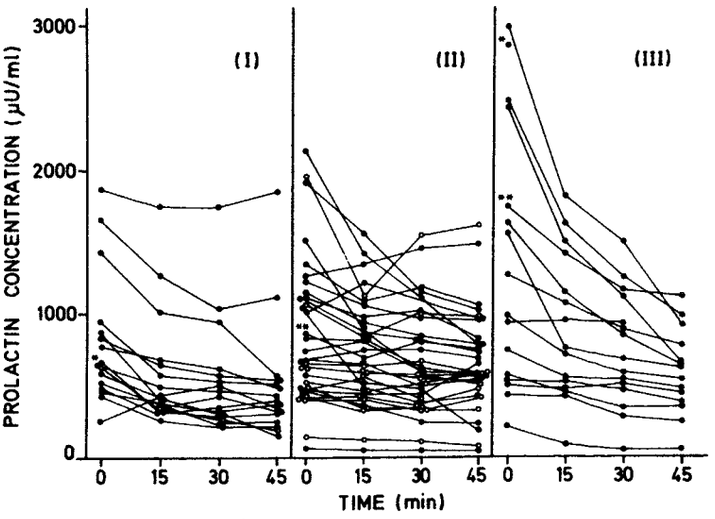
STRESS HYPERPROLACTINÆMIA IN CLINICAL PRACTICE

SIR,—We have studied plasma-prolactin concentrations[1] in women being investigated at an infertility clinic.

4 blood-samples were taken every 15 min between 2 and 6 P.M. 64 women were studied, all having regular cycles; and on measurement of basal body temperature all had a hyperthermic plateau of 12–15 days. Prolactin concentrations of more than 1200 microunits/ml in the first sample were found in 19%



Serial plasma-prolactin concentrations.

(I)=after interview only;
(II)=after interview with pelvic examination;
(III)=after endometrial biopsy.
O=Patients who had a breast examination.
*=Patients from whom blood-samples were taken twice.

of the women who had an interview only, in 24% of women who had a gynæcological examination, and in 50% of women who had an endometrial biopsy. In all except 4 of the women, the prolactin concentration was normal in subsequent samples. In women with initial concentrations below 1000 microunits/ml the prolactin concentrations in the second sample were lower than in the first sample ($P<0·01$). Breast examination did not change prolactin concentration (see figure).

This initial rise in plasma-prolactin is probably caused by stress. Prolactin rises only rarely after venepuncture[2] but a gynæcological examination in an infertility clinic may induce a particular form of stress. Stress hyperprolactinæmia may be a frequent phenomenon in clinical practice and we recommend that serial blood-samples be taken in all women with moderately raised plasma-prolactin concentrations as a precaution against overtreatment with bromocriptine in women with moderate (stress) hyperprolactinæmia and suspected luteal-phase insufficiency.[3]

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