

EFFECTIVE MANAGEMENT OF A SUPRASELLAR EXTENDING PROLACTINOMA DURING PREGNANCY

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Summary: A patient with mild hyperprolactinemia and a CT-scanned 6×9 mm pituitary adenoma is described. Pregnancy occurred spontaneously. During pregnancy severe headache and rapidly increasing visual field defects due to suprasellar extension of the adenoma were observed. The patient was treated with bromocryptine in a dose of 5 mg daily which resulted in dramatic improvement of symptoms in 2 weeks and a normalization of the visual field within 3 weeks.

The association between pregnancy and prolactinoma is an infrequent event because the tumour itself is rather uncommon, and the hyperprolactinemia greatly reduces fertility⁽¹⁾. As a consequence, a large experience in the management of microadenomas during pregnancy is difficult to achieve. To enrich the data available in literature we wish to report a well-documented case of microadenoma which became abruptly symptomatic near the end of pregnancy and its effective treatment with a low dose of bromocryptine.

CASE REPORT

C.M., aged 24, was first seen in 1981 for evaluation of a long lasting oligomenorrhea, galactorrhea and headache.

A mild hyperprolactinemia (35 ng/ml) was observed, the visual field was normal, but the CT scan of the pituitary fossa evidenced a microadenoma 6×9 millimeters in diameters (fig. 1a). Bromocryptine 5 mg/day was immediately started but after eight months the patients refused the therapy and any further control.

Three years later a spontaneous pregnancy was diagnosed, which was uneventful up to the 36th week, when severe headache and visual defects abruptly appeared. Serum prolactin, for the first time since the beginning of pregnancy,

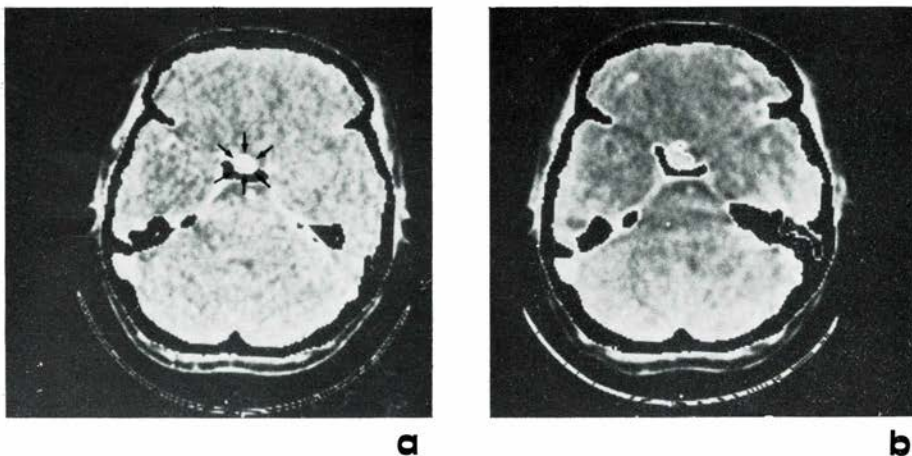


Fig. 1. — CT scan at sellar level before (a) and after (b) pregnancy: the tumor diameters are respectively 6×9 mm in «a» and 7×10 in «b».

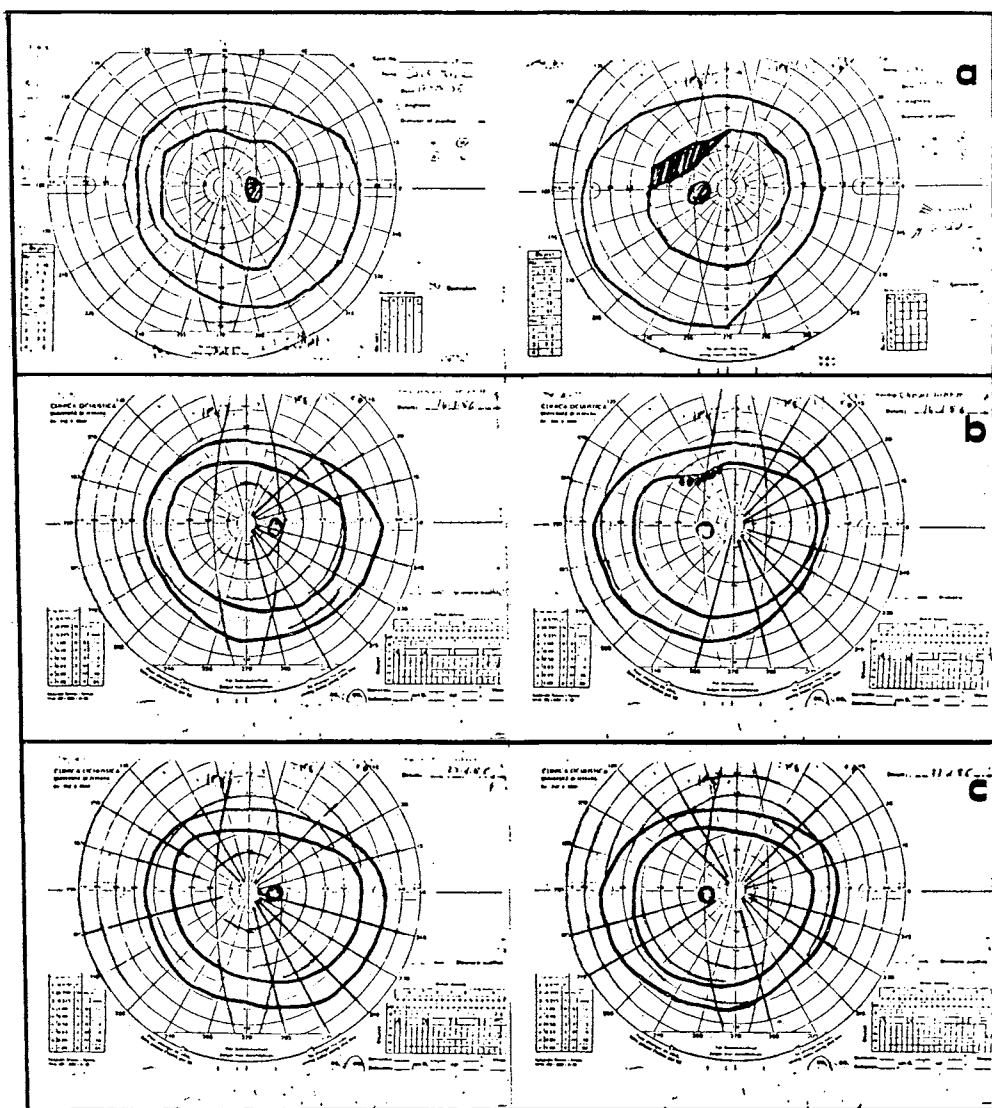


Fig. 2. — Visual fields at week 36 (a), when superior quadrant temporal scotoma was shown, and after two (b) and three (c) weeks of bromocryptine therapy.

was over the normal limits (591 ng/ml; normal values at 36 weeks' gestation 84-232 ng/ml). In the visual field for the first time a relative temporal superior scotoma appeared in the left eye (fig. 2 a). Bromocryptine therapy (5 mg/day) was immediately initiated and resulted in an almost immediate improvement of symptoms which completely disappeared within two weeks when serum prolactin was reduced to 69 ng/ml and the visual field had returned near to normal (fig. 2 b).

A complete normalization of the visual field was achieved in three weeks (fig. 2 c).

The patient delivered at the 42nd week a healthy baby weighing 3360 gms by cesarean section for cephalopelvic disproportion.

DISCUSSION

Like the normal pituitary tissue, the prolactinoma may enlarged during pregnancy to such a size as to cause pressure on adjacent structures, resulting in neurological symptoms⁽²⁾. So, in such patients, pregnancy was considered a hazard and a preventive surgical or radiological tumorectomy has been suggested. With increasing experience, only macroadenomas seem to require preventive measures, since microprolactinomas seldom give severe complications⁽³⁾, and they seem to reduce their volume even during pregnancy, by the action of Dopa agonists.

To avoid a poor fetal lung maturation⁽⁴⁾ the proposed prophylaxis of the suprasellar extension of the tumor by mean of bromocryptine^(9, 10) should not be recommended.

So we adopted a cautious approach including a close monitoring of prolactin plasma levels and visual field controls.

The symptoms appeared abruptly as usual⁽⁵⁾, whilst the age of gestation was unusually late⁽¹⁾ so the use of bromocryptine was completely safe with regard to a possible impairment of fetal lung maturity.

A low dose of bromocryptine, 5 mg/day, was effective and resulted in a dramatic clinical improvement over a few days.

The newborn appeared perfectly healthy, as did the mother, the only problem being the obvious inhibition of puerperal lactation.

Treatment was continued for two months after delivery when a repeated CT scan (fig. 1) evidenced, in comparison with the previous one (fig. 1a), a persisting increase of the tumor mass of 1 millimeter on both diameters.

In our patient, direct radiological evidence of tumor growth during pregnancy was not obtained, for obvious reasons, but the clinical symptoms and the visual field defects clearly indicate a suprasellar expansion of the adenoma.

Six months after discontinuation of therapy the patient has amenorrhea but not symptoms of tumor growth. The baby is growing regularly and does not show neurological problems.

This case allows a few statements to be made:

— A "tumoral range" for prolactin serum level does not exist.

— Prolactin secreting microadenoma associated with a mild hyperprolactinemia does not exclude spontaneous pregnancy.

— Close monitoring and prompt beginning of therapy make pregnancy safe for both mother and fetus.

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