CASE PRESENTATION

Use of Bromocriptine during Pregnancy in Prolactinomas

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We present a case report in which bromocriptine was continuously used throughout pregnancy to prevent re-expansion of a prolactinoma. Prolactinomas are the most common secreting pituitary tumours. During pregnancy they tend to increase in size causing pressure symptoms and neurological deficits. Bromocriptine has been used to reduce the size of these expanding tumours in and out of pregnancy.

THE CASE

A 37-year-old East Indian woman was first seen in 1988, complaining of amenorrhoea for the previous three years. She had no galactorrhoea. During seven years of marriage she had been unable to conceive.

Her physical examination was normal and the laboratory investigation showed an elevated prolactin of 260 ng/ml (normal value < 20 ng/ml). A CT scan of the head showed asymmetry in the pituitary gland area suggestive of microadenoma. The patient was placed on bromocriptine in October 1988 and a month later Clomid was added. The follow-up prolactin level in January 1989 was 47 ng/ml.

In February 1989 she had a positive pregnancy test and bromocriptine was discontinued immediately. She was however admitted a few days later with severe headache of four days duration, localised to the right side of the head and associated with vomiting several times a day. The prolactin level was 219 ng/ml. Ophthalmological examination confirmed right ophthalmoplegia with ptosis secondary to 3rd nerve palsy. Visual fields were reported normal. A CT scan showed a pituitary adenoma with either invasion or displacement of the right cavernous sinus (Figure 1). The patient was seen by the Endocrinology team and bromocriptine 2.5 mg Tid was reinstituted. A few days later the patient's condition improved and the ophthalmoplegia resolved.

In March 1989 she was admitted to the hospital again with missed abortion and evacuation was done. In April 1989 she was seen in the Endocrinology Clinic with a prolactin level of 12 ng/ml and she was asymptomatic.

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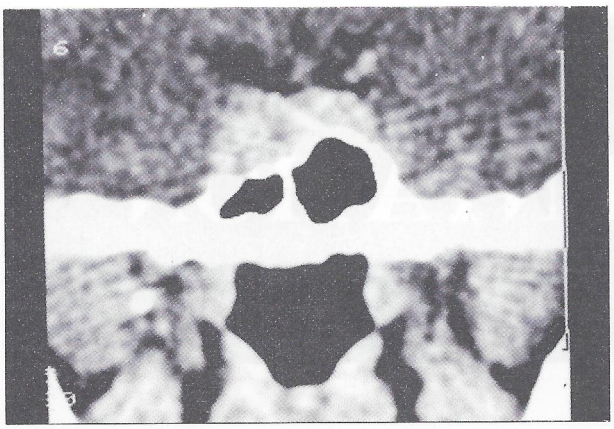

Figure 1

A CT scan showed no change in the size of the intrasellar tumour. She was continued on bromocriptine 2.5 mg Tid. In October 1989 she again had a positive pregnancy test but unfortunately had a complete abortion in November.

In April 1990 a follow-up CT scan was normal with no evidence of pituitary tumour. The patient was still taking bromocriptine 2.5 mg Tid. One month later she was found to be pregnant again and it was decided to continue bromocriptine during this pregnancy. The patient did not have any symptoms or signs suggestive of pituitary expansion. In November 1990, she was admitted to the hospital with gestational diabetes and was given insulin. On January 1991 the patient underwent cesarean section because of oblique lie and she delivered a male baby weighing 3260 gms. Her prolactin level was 2 ng/ml. The patient was discharged with a maintenance dose of bromocriptine 2.5 mg Tid and she remains asymptomatic to this day.

DISCUSSION

The reported prevalence of microadenomas in autopsy series rates between 23 and 27%[1]. Pregnancy is associated with a marked increase in size of 50 to 70% of the normal pituitary and this has raised concern regarding enlargement of pituitary tumours[2]. There are numerous reports in literature suggesting enlargement of prolactinomas during pregnancy. About 1.6% of patients with microadenomas who become pregnant develop symptoms of tumour enlargement eg. headaches and/or visual disturbances[3]. Studies looking into the use of bromocriptine during pregnancy have not shown an association with increased risk of multiple pregnancies, spontaneous abortions, ectopic pregnancy or congenital malformations[4]. The use of bromocriptine is highly effective in the treatment of neurological complications that occur in pregnant women in prolactinomas[5].

Due to the enlargement of the microadenoma in our patient's pregnancy after stopping bromocriptine, it was decided that if she became pregnant again bromocriptine would be continued throughout the pregnancy. This in fact was done; the tumour did not enlarge and the patient delivered a healthy baby who has not suffered any mental or physical ill-development.

Should bromocriptine be administered continuously in patients with microadenoma in order to prevent neurological complications in pregnant women as Konopka suggests in his paper?[6] We feel that in patients with microadenomas who do develop enlargement of their tumour during pregnancy, the continuous administration of bromocriptine through subsequent pregnancies is justified.

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