

INTRACRANIAL MASS LESION AND PREGNANCY

by

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Concurrence of Intracranial Mass lesion and pregnancy, and pregnancy following removal of such lesion is very rare. In few standard text books space occupying lesion (S.O.L.) and pregnancy has been described. We are presenting 2 interesting cases with review of literatures.

Case 1

Space occupying lesion and pregnancy

R.P. 19 years unbooked, primigravida was admitted in Eden Hospital, Calcutta on 5-7-76 with generalised convulsion at 28 weeks of gestation. She was unconscious, B.P. 110/70 mm Hg. slight oedema and proteinurea. The case was diagnosed as eclampsia and was put on usual treatment of eclampsia without improvement. Twenty-four hours after admission relatives told that she was suffering from transient occipital headache during household activity and dimness of vision for the last 5 months and was under treatment in our Neurological department for brain tumour. C.S.F. pressure was raised without any cellular and biochemical changes. Papilloedema was present. Termination of pregnancy was suggested by Neurology department but both the Surgeon and anaesthetist opined that the patient will not stand operation. Operation was deferred and the patient died 72 hours after admission. No postmortem was allowed by relatives.

Case 2

Pregnancy following removal of Right Parasagittal meningioma

M. D. 34 years primigravida, who had removal of right sided parasagittal meningioma on December 1975, was attending our A.N. Clinic from 12 weeks gestation. Her expected date of delivery was 22nd May 1977. Two years before removal of the brain tumour, she was having frontal headache which used to aggravate on straining with occasional seizures and hemiparesis of left hand and leg. She had also tenderness on right parietal region. She was on usual medication for antenatal mothers and Gardinal 60 mg. daily (as advised by Neuro-Surgical department) and Folic acid 5 mg. twice daily and occasional diuretics. Antenatal period was uneventful except occasional focal seizures, headache and oedema legs. Labour pain started prematurely on 10-4-77 at 37 weeks and was delivered by forceps 14 hours after onset of labour. Female baby weighing 2150 gm. with Apgar score 8. Neonate had several focal and generalised seizures treated with Luminal gr. 1/8. Lumber puncture was done with no conclusive evidence of pathology. No congenital anomalies were detected clinically. Both mother and neonate went home on 21-4-77.

Discussion

Intracranial mass lesion includes all primary and metastatic neoplasms of C.N.S., haematoma and abscess of the brain. 75 per cent of all brain tumours in female during reproductive age were diagnosed during pregnancy. Divry and Badon (1948) stated that in approximate-

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ly 80 per cent of women with intracranial mass lesion, symptoms aggravate during pregnancy and in the remaining 20 per cent during labour and puerperium. According to Weyand *et al* (1951), the cause of asymptomatic tumour becoming symptomatic during pregnancy is due to increased accumulation of intracellular fluid and seldom due to increased rate of growth of the brain tumour. Michalsen and New (1969) and Bickerstaff *et al* (1958) stated that tumour tends to progress during pregnancy, particularly meningioma, angioma and neurofibroma. In case 1, tumour became symptomatic at 12 weeks gestation. Rand and Andler's (1950) series symptoms of brain tumour appeared in most cases in the second and third trimesters. In case 2 it was symptomatic before pregnancy and the patient was free from symptoms till she became pregnant. Increased oedema of the brain tissue or increased rate of growth of brain tumour may be responsible for producing symptoms in Case 1. As the tumour was removed before pregnancy in case 2 re-appearance of symptoms during pregnancy, indicates increased oedema of brain tissue responsible for producing symptoms. But the question is, whether during normal pregnancy (as in case 2) there is enough oedema of brain tissue that can produce symptom. In reviewing the literature it was found that headache of varying degree was present in all patients, nausea and vomiting frequently and convulsion very rarely. Headache produced by space occupying lesions is typical (worse with cough, straining, bending and sudden movement). Both our cases had typical headache. Occipital headache in case 1 indicates subtentorial S.O.L. and in case 2 tenderness over parietal bone suggests

superficial lesion like meningioma, abscess or haematoma. Convulsions in S.O.L. may sometimes be mistaken with eclampsia as in case 1. Tarnow (1960) reported 97 cases of intracranial mass lesion with pregnancy and came to the conclusion that in two thirds of the cases lesion was supratentorial and patients survived and in one third it was subtentorial and all of them died. Kloss (1962) advocated interruption of pregnancy if vision deteriorates. From that point pregnancy should have been terminated in case 1 as advocated by neurophysician but if Tarnow's observation is correct the patient was destined to die. For case 2 we kept the case under close observation, with occasional diuretics. Labour was terminated by low forceps. We cannot explain why the neonate had convulsion, as cerebral dysarrhythmia are transmitted not seizure.

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