

SPECTRUM OF NEUROLOGICAL DISORDERS IN OBSTETRIC PRACTICE

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SUMMARY

The spectrum of neurological disorders was studied in 317 antenatal and postnatal cases out of which 88% were antenatal and 12% were postnatal cases. The most common neurological problem was headache (64.7%). Paraesthesia was present in 50.5%, 8.5% had eclampsia and its complications, 3.1% had epileptic fits, 2.5% had cerebrovascular accidents, 2.2% had CNS infection, 1.2% had neuropathy and 1% had cranial nerve palsies.

INTRODUCTION

Pregnancy alters the behaviour of certain neurological disorders like epilepsy, migraine, myasthenia gravis (Plauche, 1983) and predisposes the pregnant females to cerebro-vascular accidents (Graham, 1982; Srinivasan, 1983). Wernicke's encephalopathy and peripheral nerve lesions. A combined effort by the obstetrician and the physician is required to study the incidence of various neurological disorders during

pregnancy and to throw light on the role of antenatal checkup in their prevention and management.

MATERIAL AND METHODS

This study was conducted on 317 patients having neurological symptoms during pregnancy and post partum period attending the Deptt. of Obste. and Gynae. B.R.D. Medical College and Nehru Hospital, Gorakhpur. Detailed history and thorough general, obstetrical and neurological examination was undertaken. The findings were grouped into various neurological disorders and classified as

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per the international classification.

RESULTS

Out of 317 patients having neurological symptoms, 88% were antenatal and 12% were postnatal cases, 53.9% patients were 15-25 years of age, 36.6% patients were primigravidae/while 63.4% were multiparous (Table I). The most common neurological problem was found to be headache (64.7%) and paraesthesiae (50.5%), 8.5% patients had eclampsia and its complications, 3.1% had epileptic seizures, 2.5% had cerebrovascular accidents, 2.2% had C.N.S. infection, 1.2% had neuropathy and 1% had cranial nerve palsies (Table II). As the largest group was of headache cases. So it was further classified according to the international headache society and it was found that tension type of headache was observed in 66.4% cases, hypertensive headache was present in 19.5% cases. Range of other types of headache was from 0.5% to 4.4%, migraine was found

in only one case (Table III).

Paraesthesia was seen in 64.4% of cases during the first trimester, 22.5% during the third trimester and 13.1% during the second trimester of pregnancy (Table IV).

Eclampsia and its neurological complications were further grouped in which hypertension, altered sensorium and convulsions were the universal phenomenon

Table II

Various neurological disorder in the study

Neurological disorder	No. of cases	Percentage
Headache	205	64.7
Paraesthesiae	160	50.5
Eclampsia	27	8.5
Epilepsy	10	3.1
Cerebrovascular accidents	8	2.5
CNS infection	7	2.2
Neuropathy	4	1.2
Cranial nerve palsies	3	1.0

Table I

Distribution of cases according to Age/ pregnancy status/parity

Cases according to	Number	Percentage
Age		
15-25 yrs	171	53.9
26 yrs and more	146	46.1
Pregnancy Status		
Antenatal	278	88
Post natal	39	12
Parity		
Primigravida/para	116	36.6
Multipara ($\geq P_2$)	201	63.4

Table III

Distribution of types of headache as per International headache society classification

Headache-type	No. of cases	Percentage
Tension type headahce	136	64.4
Hypertensive headache	40	19.5
Cerebro-vascular accidents	8	3.9
Low CSF pressure headache	9	4.4
CNS infection	7	3.3
Non-cephalic infection	3	1.5
Migraine	1	0.5
Referred headache	1	0.5

(100%) among these patients. Headache was present in 62.9% cases, oedema in 51.9%, visual symptoms in 14.8%, three patients had unilateral/bilateral paralysis of limbs and 77.8% were anaemic (Table V).

Table IV

Relation of Paraesthesia to gestational age

Gestational age	No. of cases	Percentage
First trimester	103	64.4
Second trimester	21	13.1
Third trimester	36	22.5

Table V

Signs/symptoms in patients with eclampsia and its related neurological disorders in 27 cases

Signs/Symptoms	No. of cases	Percentage
Hypertension	27	100
Altered sensorium	27	100
Convulsion	27	100
Headache	17	62.9
Paralysis	3	11.1
Visual Symptom	4	14.8
Presence of Oedema	14	51.9
Anaemia	21	77.8

DISCUSSION

In the present study, the maximum number of young, primigravidae patients suggests that these patients prefer to attend the antenatal clinics and hospital deliveries while multiparous women favour home deliveries.

Headache, mainly tension type was more common (Table II, III) as it is also found commonly in the general population (Diamond, S. 1983).

We had only one patient of migraine, although it is of common occurrence in the young females and is due to change in pattern of circulating oestrogen in pregnancy (Somerville, 1972).

Paraesthesiae was more common during first trimester (Table IV). Vir et al. 1980; Moghissi, 1981 also showed increased requirement of thiamine during pregnancy especially in early pregnancy when it is associated with vomiting and nutritional deficiencies which leads to paraesthesia.

The symptoms and signs of eclampsia are well known and they do not require any special mention. We found visual symptoms in 14.8% of our patients (Table V). These are possibly due to cortex dysfunction secondary to vasospasm (Leibowitz and Hall, 1984).

In Mothers with epilepsy, Knight and Rhind (1975) found an increase in seizure frequency in 45%, no change in 50% and decrease in frequency in 5%. Similar findings were observed in our study, 50% patients showed worsening of fits and 50% had no change in fits during pregnancy.

We found cortical vein thrombosis in 5 of our 8 patients of CVA. This corresponds to controversial study of Srinivasan (1983), where 129 out of 135 patients had venous occlusion.

CONCLUSION

The combined effort and close co-operation of the physician and the obste-

trician is required to understand the neurological problems during obstetric practice and proper antenatal checkups for better maternal and foetal outcome.

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