

(A Health Awareness Initiative)

NEURO NEWSLINE

Author

Dr. M. J. Arunkumar, M. Ch., DNB
Senior Consultant Neurosurgeon
Hannah Joseph Hospital, Madurai

NEUROLOGICAL PROBLEMS DUE TO HYPERTENSION !

Hypertension is one of the major risk factors for many neurological disorders ranging from cerebrovascular diseases to dementia leading to paralysis of the limbs, blindness and even death. The onset of the neurological illness may be sudden (acute) such as 'Stroke' or subacute like encephalopathy or chronic leading to a progressive cognitive decline.

1. Brain hemorrhages:

Uncontrolled hypertension is the most common cause of brain hemorrhage. The incidence is almost 50 % of all bleeds that occur in the brain. In general the symptoms are very abrupt with alteration in the level of consciousness leading to coma with or without weakness of the limbs. On the other hand, there may be only a trivial headache with or without vomiting and with minimal neurological deficits. This happens when the hemorrhage is small in size. Some do experience focal or generalised seizures due to a hypertensive brain hemorrhage.

A CT Scan or an MRI of the brain is the basic investigation one needs to undergo. Based on the scan findings treatment is initiated with the use of anti edema measures, anticonvulsants and anti hypertensives (oral or intravenous) for a good control of the blood pressure. Some patients do need a

'Cerebral Angiography' (MR-A or Digital Subtraction angiography) to rule out other causes of a brain hemorrhage due to a ruptured vascular malformation or an aneurysm. Apart from medical treatment, surgery may be needed to drain large haematomas that is causing pressure symptoms.

2. Thrombo-embolism (Occlusive Stroke):

Hypertension is one among the major risk factor for the development



of an occlusive stroke (thrombo-embolic). This can lead to a transient neurological weakness or numbness of the limbs. At times it causes permanent disability due to complete occlusion (due to atherosclerotic changes) of the feeding vessels leading to inadequate perfusion to that part of the brain or brainstem. Some patients develop transient visual loss ('amaurosis fugax') due to retinal artery spasm !

Treatment includes heparin therapy and anti platelet drugs for minor stroke. Thrombolytic agents for reperfusion of the ischemic or

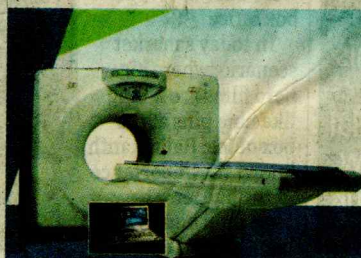
damaged brain are used if the patient arrives early to the emergency room. Doppler studies and neck vessel angiography spells the need for carotid endarterectomy (surgery to remove the occluding atherosclerotic plaque in the blood vessel), placing of stents (angioplasty) or balloon dilatation of the narrowed artery.

3. Hypertensive Encephalopathy:

These are related to disordered vascular auto regulation in patients

"Uncontrolled hypertension is the most common cause of brain hemorrhage"

with uncontrolled subacute hypertension (or malignant hypertension). They present with severe headache, nausea and vomiting, and at times with seizures. In the late stage, this can lead to deep coma or altered sensorium. Treatment includes hospitalisation in the intensive care unit with rapid and adequate control of hypertension, antiemetics and anti convulsants. Some patients do require anti edema therapy if their imaging studies show cerebral edema. Early and prompt treatment can make this critical illness completely reversible !



EMERGENCY & TRAUMA SERVICE



Your Faith Shall Heal

Hannah Joseph Hospital

Institute of Neurosciences & Trauma

134, Lake View Road, K.K.Nagar, Madurai - 625 020 Ph : 0452 - 2585822 / 23, 3918401.

E-mail : drmj.arunkumar@gmail.com Website : www.hannahjosephhospital.com