



SPONTANEOUS PRIMARY INTRA VENTRICULAR HAEMORRHAGE – A RARE CASE REPORT

KEYWORDS

Primary intra ventricular haemorrhage (PIVH), arterio venous malformations, cerebral angiography.

Dr.PothulaRamarao

MD Assistant Professor
,Department of General Medicine,
Kurnool medical college Kurnool

Dr.PuttaSrilatha

MD, Assistant Professor
,Department of Paediatrics
Kurnool medical college Kurnool

Dr.ChakraPani

Junior Resident , Department of
General Medicine Kurnool medical
college Kurnool

Dr.BharathBhushan Reddy

Junior Resident , Department of General Medicine
Kurnool medical college Kurnool

Dr.GundrathiVamsiVihari

Junior Resident ,Department of General Medicine
Kurnool medical college Kurnool

ABSTRACT *Intra ventricular haemorrhage without intra parenchymal bleed is very rare with poor outcome .It accounts for 3.1 % of all intra cranial haemorrhages .Hypertension is important predisposing factor with high mortality rate 41 – 80 % Here we are reporting a case of 40 years old male who had spontaneous primary intra ventricular haemorrhage without neurological deficit recovered completely with conservative management.*

INTRODUCTION

Intra ventricular haemorrhage merely denotes the present of blood within the ventricular system of the brain It can be divided into primary and secondary.Primary:A hematoma either confined completely within the ventricular system or arising within 1.5 millimeters of ventricular system , Secondary:A large extraventricular component is present (e.g. parenchymal or subarachnoid) with secondary extension into the ventricles

Sanders described primary intra ventricular haemorrhage first more than a century ago, but few researchers have studied it since then. Prior to the introduction of the computed tomography (CT) scan, knowledge concerning PIVH came from autopsy series.

CASE REPORT

A 40 years old male patient who was from putluru ,Kurnool brought to the emergency department govt general hospital Kurnool with chief complaints of headachae ,giddiness ,and sudden loss of consciousness for about 10 minutes while doing his routine work in morning . Patient was not a known diabetic or hypertensive .On initial examination patient was drowsy , vitals pulse 87 per minute ,blood pressure 210/120 millimeters of mercury, respiratory rate 14 per minute , and temperature was normal. All systems including nervous system were normal .All biochemical parameters were within normal limit .Electrocardiogram showed left ventricular hypertrophy , fundus shows grade- III Hypertensive changes CT brain intra ventricular bleed without intra parenchymal bleed without intra parenchymal bleed and obstructive hydrocephalous .His coagulation profile was normal and CT cerebral angiogram shows no arterio venous malformations .Patient recovered spontaneously with conservative treatment .After gradual controlling of blood pressure patient got discharged



Lateral ventricular bleed
3 rd ventricular bleed

DISCUSSION

Primary intra ventricular haemorrhage (PIVH)incidence is very rare .Clinical features include headachae which is most common symptom ,loss of consciousness , confusion , disorientation , nausea ,vomiting , minimal focal neuro-

logical deficit and rarely seizures .Etiology includes hypertension (29.62 %) ,arterio venous malformation (27.53%), clotting disorders (11.11%), moyamoya disease (11.11%) and rarely choroid plexus tumors ,cysticercosis ,bilateral carotid artery occlusion ,arterial dissection. Female to male ratio is 1.7:1 .Mean onset of age is above 60 years .PIVH survivors often left the hospital with no physical disability, which presumably indicates the absence of parenchymal damage.CT, computed tomography angiography (CTA), magnetic resonance image (MRI), and magnetic resonance

angiography (MRA) have come into use as noninvasive-screening procedures for intracranial vascular abnormalities.

Hence, these noninvasive imaging modalities are useful for screening for PIVH, particularly in older, hypertensive patients. MRI is useful for investigating possible vascular malformations, and MRA and CTA are likewise useful for aneurysm investigation. Diagnosis and treatment planning may require conventional cerebral angiography.

Hydrocephalus is a frequent PIVH complication and is probably due to the obstruction of cerebrospinal fluid (CSF) circulation or impairment in meningeal absorption. .The ventricular system can provide an outlet for haemorrhage expansion with perhaps less resistance than does

brain parenchyma, and haemorrhage volume can independently exert a mass effect on the surrounding brain tissue. In addition, obstruction of the cerebrospinal fluid can cause obstructive hydrocephalus, which can raise intracranial pressure. It was not surprising that hematoma volume and degree of midline shift correlated positively with mortality. If the IVH was close to the foramen of Monro or within the third or fourth ventricles, the likelihood of obstructive hydrocephalus increased, which increased the chance of a lethal result. Acute hydrocephalus contributed significantly to death and deterioration in the acute stages. Treatment for PIVH is not clear. The need of extra ventricular drainage in IVH patients is seven times greater than in other types of haemorrhage .Aggressive

management of hydrocephalus will improve the outcomes of patients with PIVH

CONCLUSION

PIVH is rare and hypertension is the most important predisposing factor. Yield of cerebral angiography is high in diagnosing the etiological causes of PIVH. Apart from hypertension and AVMs other etiological causes like MMD, LSA aneurysm, arterial dissection should be kept in mind with high index of suspicion and warrants cerebral angiography in all these patients with PIVH as some of the causes are potentially treatable.

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