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Original Article

Surgery in Hypertensive Intracerebral Haematoma (ICH) Study of 49 Cases

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Abstract

Surgery in hypertensive intra cerebral haematoma are still controversial. We treated 49 cases of intracerebral haematoma surgically from January 1995 to December 2005. Hypertensive haematomas are- putaminal, thalamic, cerebellar, pontine haemorrhage and subcortical. These haematomas are mild, moderate and severe type. We operated ICH, where the diameters of haematomas were more than 3cm. Outcome was assessed on basis of activity of daily living (ADL). Male to female ratio was 5:2, Patients age ranged 45 to 72 years. All patients presented with unconscious or semiconscious stage, 100% patients had CT scan of brain. In this study of 49 cases 20(40.82%) had ADL II, 24 (45.82%) had ADL III, 1 (2.4%) had ADL IV. Death occurred in 04 (8.16%) cases.

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Introduction

Hypertensive patients, up to 70% haemorrhage occur in the basal ganglia, thalamic region [1]. It may happen in the subcortical pontine and cerebellar sites. Hypertensive ICH is a serious and potentially lethal condition[1]. The introduction of CT, MRI scan has made early diagnosis simple and easy. The surgical removal of all types of ICH has resulted in disappointing overall prognosis, most important factors influencing the prognosis is proper selection of patient. ICH is associated with hypertension is about 40 to 60 % of patients[2]. In USA, ICH accounting for 15% of all deaths annually behind cancer and heart disease. ICH account for 10-17 % of all strokes[2].

Patients and Methods

In our study, 49 patients of ICH are included between January 2000 to December 2005.This is a prospective study.

Results

There were, cortical intracerebral haematoma (ICH) = 40 (81.63%)

Putamen = 5 (10.21%)
Thalamic = 2 (4.08%)

Cerebellar = 2 (4.08%)

Pontine = Nil

In this study: All patients with moderate to severe hypertension; 5 (10.2%). patients with diabetics mellitus. Male – 35(71.4%), Female -14 (28.5%).

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In our study all (100%) patient came with unconscious stage with different type of neurological deficits. All this patients transfer to our neurosurgery unit after 12 hours to 7 days. These patients had CT scan and MRI scan to see the size of haematoma, mass effect and location of haemorrhage (Fig. I & II). Out come is evaluated by activity of daily living (ADL). ADL=I –normal recovery.ADL = II –partial recovery, ADL =III – Social life not possible, ADL =IV – Bed ridden,ADL = V- Vagetative.

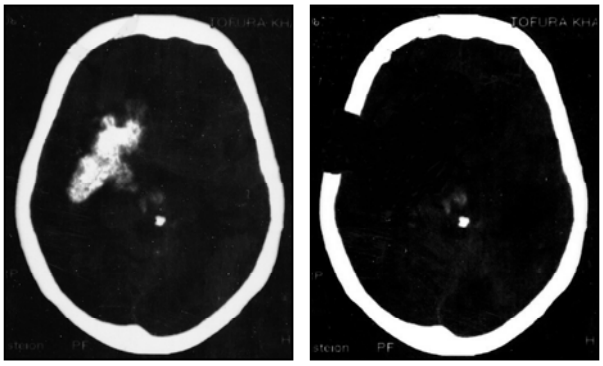

Fig-1: CT scan brain, Pre-operative shows haematoma

Fig-2: CT scan brain, Post-operative shows no haematoma

In this, 49 patients underwent surgery by small craniotomy 45 cases and simple burrwhole surgery[4] cases. Out come according to ADL in our study ADL II = 20, ADL III =24, ADL IV= 01, Death =04 (8.16%) patients.

Discussion

By far the most important risk factor associated with intracerebral haemorrhage is hypertension , with 40-60% of all ICH patients found to have this disorder[3] , it has been established that patients who have chronic hypertension predisposed. To ICH. ICH with hyper tension commonly found in basal ganglia and pons due to milliary aneurysm rupture. ICH has a wide range of presentation, asymptomatic or transient ischemic attack to coma or death[4], CT scan remains the standard method of diagnosis in all cases of acute ICH MRI and MRA are used only as secondary studies[4].

Surgical treatment is resorted to, if the patient is deteriorating rapidly and immediate evacuation of the haematoma is needed to either reduce local compression to neural structures. The choice of treatment in hypertension ICH has always been controversial[4]. One has to be highly selective to achieve good result with surgical therapy[5]. However the residual morbidity and the mortality and the quality of life still is not satisfactory.

Conclusion

The prognosis of ICH due to hypertension depends on the location and severity of the bleed, age and condition of the patients. Brain stem, and dianchephalic bleeds have a poover prognosis than those bof cerebral haemarrhage.

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References

1. Katada K. Kanno T.SanoH et al. CT of hypertensive intracerebral haemorrhage findings of super acute stage. J. Comput, Assist. Tomogra 1979; 3: 554-555.
2. Kaneko M, Tanaka K. Shimada T. et al. Long term evaluation of ultra-early operation for hypertensive intracerebral haemorrhage in 100 cases. J. Neurosurgery 1983; 58:838-842.
3. Pailass SE, Alliez B. surgical treatment of spontaneous intracerebral haemorrhage. Immediate and long term results in 250 cases Neurosurgery 1973; 39:145-151.
4. Kanno T. Sano H. shinoya Y. et al. Role of surgery in hypertensive intracerebral haematoma. Comparative study of case 305 nonsurgical and 154 surgical cases J. Neurosurgery 1984; 61:1091-99.
5. Kanoya H. All Japan cooperative study on the treatment of hypertensive intracerebral haemorrhage Jap. J. strokes 1990; 12:509-524.

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