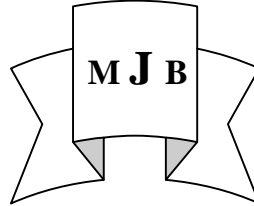


The Out Come of Management of Spontaneous Intracerebral Hemorrhage

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Abstract

Background To find the most appropriate mode of management in relation to a clot size , level of Consciousness and Location of haematoma .

Methods Forty two consecutive patient presented with in tracrebral hemorrhage were included in this study , patient with moderate to large clot and deteriorating in Neurological deficit and GCS of more than five where included in surgical treatment , while the others patients treated conservatively .

Result. Level of consciousness , Neurological deficit , Location and size of Haematoma are a guidelines for surgically or conservatively treatment

Conclusion Surgical treatment preferred in large Superficially haematoma with mid line shift.

علاج النزف التلقائي داخل الدماغ والنتائج المستحصلة

الخلاصة

من اجل الوصول إلى أفضل الطرق في علاج النزف التلقائي داخل الدماغ بالمقارنة مع حجم النزف والحالة الصحية ودرجة الوعي لدى المصاب تم دراسة اثنان وأربعون حالة أدخلوا إلى المستشفيات بسبب تدهور درجة الوعي أو لوجود علامة ضرر مركز عصبي تم معالجة بعض الحالات جراحيا بعملية فتح الجمجمة وتفرغ النزف او بعملية بزل السائل الشوكي والبعض الأخر تم معالجتهم تحفيظا باستخدام المراقبة والعقاقير الطبية فقط كانت نتيجة الدراسات وجوب إجراء عملية جراحية للمرضى الذين يعانون من نزف متوسط وكبير الحجم والذي بدوره أدى إلى ضغط على الجزء المعاكس من الدماغ أوفي حالة غيبوبة كاملة للوصول إلى أفضل النتائج

Introduction

Spontaneous Intra cerebral Hemorrhage (ICH) is defined as bleeding in to the brain parenchyma with out accompany trauma, ICH accounts for 10-17 % of all strokes [1] the mortality of 30 days from supratentorial and infratentorial hemorrhage was 58% and 31% respectively [2].

The hypertensive bleeds occurs in the deep gray matter(65%) Pons (11%) and, cerebellum (8%), whereas bleeds associated with other disorder

are likely to be located in the subcortical white matter (45%) , deep gray matter (36%) , pons(10%) and cerebellum (3%) .[3]

By for the more important risk factor associated with ICH is hypertension with 40-60 % of all patients found to have this disorders . Aneurysms (20%), vascular malformation (5-7%), coagulopathy (5-7%), and tumors (1-11%), as well as hemorrhagic infarcts ,cerebral amyloid angiopathy and drug reaction[3,4].

ICH has wide range of presentation From asymptomatic or transient ischemic attack like to coma or death . each determined by the size and location of hemorrhage . Hemiplegia is found in (95%) of cases , stupor or drowsiness in 45-56 % of cases and coma in approximately 30% of cases and other findings which depend primarily on the location of the bleed include headache , nausea , vomiting, Seizures, cranial nerve deficit , ataxia and aphasia. [5] posterior fossa lesions are often accompanied by nausea , vomiting , decreased mentation and hydrocephalus, the extension of hemorrhage to the ventricular system associated with high mortality (65-75%) of all fatal hypertensive bleeds .[6]

when death occurs it is most often due to herniation caused by the expanding haematoma and surrounding edema .[7]

Patients evaluated at the time of admission with careful history and careful clinical examination . The identifying the site of acute ICH greatly depend on the physicians skill in interpreting clinical signs and symptoms and Brain CT scan which in the almost exclusively used in the acute setting. MRI and angiography are used only as secondary studies or incase of CT is not available. [7]

Maternal and Methods

42 consecutive patients with SICH were included in the study to .All the patients admitted to Al-Qassimi hospital in UAE between Feb. 2007 and June 2008 . Glasgow coma scale (GCS) and the initial blood pressure were recorded at admission, all the patients were evaluated with CT scan

to assess the size , shape, location and volume of haematoma [8]. Followed by angiography for 3 patients for definitive diagnosis of vascular abnormalities. which showed a small AVM in distal branch of MCA.

and ventricular extension of the haematoma .the Midline shift exceeding 5mm was considered abnormal [9].

The criteria for surgical management in supratentorial SICH were patients less than 70 years of age, GCS more than five . progressive Neurological deficit , Clot more than 40cc volume and mass effect on CT scan .

While conservative treatment depend on medical management criteria were patients above 70 years, size of colt less than 40 cc and GCS more than five . while the infratentorial bleeding because of small hematome conservative treatment depended [10].

The open fronto-temporal and tempro-parietal craniotomy used for evacuating the clot blood in Intracerebral location or intra - ventricular type.

Result

The study consisted of 42 consecutive patients of SICH in the age group 20-75 years , majority were in 5th and 6th decade (table 1) . 30 patients (71.42%) where male while 12 patients are female (28.57%), the sign and symptoms which the patients presented at time of admission was loss of consciousness in 9 (21 .42%) , sudden sever headache in 37(88%) , hemi paresis in 14 (33-33%) , drowsiness in 8 (19%) , aphasia in 3(7-1%) , and the vomiting in 17(40.47%) (table2)

Table 1 Age distribution.

Age in years.	Number of patients	%
20-30	4	9.5
31 -40	3	7.1
41 -50	20	47.6
51 -60	10	23.8
61-70	3	7.1
71- 80	2	4.7

Table 2 The sign and symptom.

Sigh and synoptic	No of parents	%
Coma	9	21.42 %
Sever headache.	37	88 %
hemi paresis	14	33.33 %
Drowsiness	8	19 %
Aphasia	3	7.1 %
Vomiting	17	30.37 %

The associated diseases at admission were high blood pressure in 35 patents with history of Hypertension in 27 patients . out of these 15 patients with irregular medication, 5 patients complaining of diabetes mellitus and three patients on anticoagulant drugs (ant platelets). The brain CT finding , the majority of bleeding were single haematoma 25(59.52%), and intraventricular hemorrhage (IVH) was seen in 7 patients (16.66%), while the multiple intracerebral hemorrhage was seen in 22 (52.38%) patients. When we look for Location of Haematoma 40 (95.23%) located in supratentorial while only two patients (4.76) were located in infratentorial .

The majority of the patients with Large bleed had midline shift seen in 25 (59.52%), while 17 (40.4%) patients presented with out mid line shift and that the midline shift seen in large volume haematoma which associated with brain edema. Twenty five patients treated conservatively

with antihypertensive, anti edema, and supportive measurements.

Remaining 27 patients were operated 20 (47.61%) , With supratentorial bleed treated by craniotomy and evacuation of Haematoma ,13 patients of 20 we can evacuated the haematoma completely while 7 patients in completely evacuated bleeding. 7 patients presented with intraventricular bleeding treated by external ventricular drainage (EVD).

Generally patients with clot more than 40 cc were operated while clots Less than 40 cc preserved at presentation.

All the infratentorial bleeding observed and conservatively treated, one of two patient presented with Hydrocephalus treated early by ventricular drainage

The study showed that the out come depend on the GCS .clot size type of treatment and the deficit which in persist. patients (19%) out of 42 patients 8 died . 5 patients (11.9) with GCS less than 9 died and 3 patients (7.1%) with GCS more the 9 died. out of 25.Patients

with midline shift 8 patients (32%) died while 2 patients (8%) were in vegetative state . 34 patients who survived , 26 (61.9%) end with neurological deficit , 20 patients out of 26 patients (76.92%) complaining of hemiplegia, 4 patients (15.38%)

Aphasia , and 2 patients (7.69%) with dysphasia . While other complaining of hemiparasthesia , 12(46.15%) Central pain, 5(19.23%) anosmia, 1(3.8%) 2 (7.65%) diplopia, and 4 (15.38) complaining of visual field defect (table 3) .

Table 3 Out come of the patients who survived

Deficit	No.of patients	%
Neurological deficit	26	61.9
Hemiplegia	20	76.92
Aphasia	4	15.38
Dysphasia	2	7.69
hem paresis	12	46.15
Central pain	5	19.23
anosmia	1	3.8
Diplopia	2	7.6
Visual field defect	4	15.38

Discussion

ICH can be treated either medically or surgically the meta analysis have confirmed that the small haematoma better to be treated conservatively while the large haematoma with mid line shift have no difference in mortality whether treated surgically or conservatively [11,12]. and No difference in the out come at the end of three months .

Surgical intervention is resorted to if the patient is deteriorating rapidly or generally mid line shift or associated with hydrocephalus [13,14,15].

As a result of the study the smaller haematoma are managed conservatively while the moderate or large haematoma better to be treated surgically . and the guidelines are clear for cerebellum haematoma [16-23].

The out come after one -3months of observation generally better in patient who were in good

Neurological status at admission .conscious ,not hypertensive and not complaining from systemic diseases , while the poor out come in patients presenters with intracerebral hemorrhage with coma [12,24-28] which is similar observation was made with our study. when there is multiple Intracerebral hemorrhage with deep seated bleed better to be treated conservatively.

Conclusion

Intracerebral hemorrhage will continue to be an important problem as the population age ,treatment is limited currently and is primarily supportive. Surgical treatment preferred in large superficially haematoma with mid line shift. and those who survived the first few days after a hemorrhagic stroke may not have such a catastrophic prognosis. Especially if it is not associated with expansion of the haematoma.

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