



A STUDY OF HYPERTENSIVE BASED ON MEAN PLATELET VOLUME

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ABSTRACT

Generally, there are 2 types of strokes. Haemorrhagic stroke and Ischemic stroke. Ischemic stroke can be subdivided into thrombotic and embolic based on the pathological mechanism. Haemorrhagic can be further subdivided into intracerebral haemorrhage and subarachnoid haemorrhage based on the site of bleed. In the intracerebral variety, the vessel wall ruptures and blood spills into the brain parenchyma, founding a hematoma in the brain. This can spread into the ventricles and then to the subarachnoid space. The reason for symptoms is the pressure effect created by haematoma on the surrounding brain tissue. Once the bleed arrests, the clot will be slowly dissolved and is absorbed over a period of time. Verifiable in all conversations of ischemic stroke and its treatment is the presence of an "obscuration" zone that is possibly perfused and contains practical neurons. Apparently this zone exists at the edges of localized necrosis, which at its center has irreversibly harmed tissue that is bound to get necrotic. Utilizing different techniques, such an obscuration can be exhibited in relationship with certain areas of localized necrosis however not all, and the level of reversible tissue harm is difficult to decide. The neurons in the obscuration are viewed as "staggered" by moderate ischemia and subject to rescue if blood flow is reestablished in a specific timeframe. Moreover, these agents and others have indicated that lifting the fundamental pulse or improving the rheologic flow properties of blood in little vessels by hemodilution improves flow in the obscuration; nonetheless, endeavors to utilize these strategies in clinical work have met with blended achievement.

Key words Intracerebral Haemorrhage, Emodilution, Rheologic, Etiology.

INTRODUCTION

In this segment presents overview of this research work. While studying stroke, one should consider both pathologic process and the basic primary disorder that has resulted in the pathology. This would help in identifying and treating both stroke as well as the primary etiology so that recurrence can also be prevented. Pathologic process are

- a. Obstruction of the lumen by embolus or thrombus
- b. Disagreement of a vessel (Haemorrhagic)

c. Changed penetrability of the vessel wall or augmented viscidness or additional alteration in the excellence of the blood flowing through the cerebral vessels. In case of subarachnoid haemorrhage, the rupture of an aneurysm is the most likely reason for haemorrhage and therefore the bleed is well dispersed around the brain parenchyma and cause little local effect to produce pressure symptoms. When the cerebral vessels go for a reflex vasospasm, certain symptoms can happen.

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Apart from the above types, at times even a clot can transform into a haemorrhage. The so-called haemorrhagic infarction.

In ischemic stroke, thrombotic are the most common. Symptoms develop over a period of time described as stuttering hemiplegia. Establishes completely after few minutes to hours. Patient would have been in rest for a long time. Mostly a single foci lesion. Similarly improvement also happens over weeks and months.

In case of emboli, it has to origin outside the brain. Symptoms develop in a short burst. Full blown symptoms at the onset. Multiple foci can be seen. Smaller vessels are commonly involved. Recovery also happens within few days.

In these articles represents sector 2 of these articles explains the feature on the related works. In section 3 presents the materials and methods adopted and section 4 presents the particulars of the experimentations and discussions. Finally segment 5 accomplishes the articles by allocation our implications and upcoming strategies.

RELATED WORKS

In this segment represents focuses the related works of this research work. The goals of alcohol dependence are achievement of abstinence, reduced frequency and relapse, health and psychosocial functioning improvement.[5] Controlled alcohol consumption as a first step in the process of treatment is followed but it's difficult to achieve reduction in alcohol consumption in severely dependent patients.[6] The difficulty is probably due to the developed addiction memory and impaired control of drinking. In the detoxification phase withdrawal symptoms varies with every individual.[7] Symptoms arise after 4-6 hours of abstinence and becomes predominant on the second day.[8] Mallory-Weiss tear is due to longitudinal oesophageal mucosal laceration usually at the gastroesophageal junction after forceful retching. Patient usually presents with the history of forceful emesis and a minor upper gastrointestinal bleeding.[9] Malignancy causes bleeding from the vasculature and clinically patient may have unexplained weight loss, previous episodes of bleeding and history of alcohol or tobacco abuse.[10] Esophageal varices is due to the fibrotic liver parenchyma causing portal hypertension and dilation of collaterals.[11] Usually presents with the history of alcohol or liver cirrhosis, ascites or previous history of esophageal bleeding. Arteriovenous malformation is due to the congenital vascular malformations which are predisposed to rupture.[12] Family history is likely to be the clinical cue. Aortoenteric fistula is due to the erosion of aortic graft into intestinal lumen and patient may have clinical history of aortic procedure with presentation of either sentinel bleed or massive hematochezia or hematemesis.[13] A determination of DIC ought to be made uniquely within the sight of a causative factor upheld by rehashed research facility tests for coagulation profile and thickening

components. A viable scoring framework assists with identifying an obvious DIC and a high score intently connects with mortality.[14] Disseminated intravascular coagulopathy ought not be considered as an unmistakable sickness substance yet rather an indication of another malady. It has been related with practically all hazardous illnesses.[15].

MATERIALS AND METHODS:

In this segment represents the materials and methods of this research work. Patients with upper gastrointestinal bleeding admitted in Chennai Region Hospitals, Tamilnadu over a period of two years from 2017 october – 2019 october were included in this study. The patients satisfying the inclusion criteria were taken up for the study. Patients admitted with upper gastrointestinal bleeding were included in this study. Determination of the study was elucidated to the patient and consent agreement was obtained.

RESULTS AND DISCUSSIONS

In this segment centers the outcomes and conversations of this exploration work. At the focal point of an ischemic stroke is a zone of localized necrosis. The necrotic tissue grows quickly, predominantly in light of extreme intracellular and intercellular water content. Since anoxia additionally causes putrefaction and growing of cerebral tissue (despite the fact that in an alternate circulation), oxygen need must be a factor normal to both localized necrosis and anoxic encephalopathy. The basic degree of hypoperfusion that abrogates capacity and prompts tissue harm is hence a CBF somewhere in the range of 12 and 23 mL/100 g/min. At these degrees of blood flow the EEG is eased back, and underneath this level it becomes isoelectric. In the area of minor perfusion ("ischemic obscuration"), the K level increments (efflux from harmed depolarized cells) and ATP and creatine phosphate are drained. These biochemical anomalies are reversible if the dissemination is reestablished to ordinary. Unsettling influence of calcium particle homeostasis and collection of free unsaturated fats meddle with full recuperation. A CBF of 6 to 8 mL/100 g/min causes checked ATP exhaustion, increment in extracellular K, increment in intracellular Ca, and cell acidosis, driving constantly to histologic indications of putrefaction. These progressions don't get evident for a few hours.

Free unsaturated fats (showing up as phospholipases) are enacted and demolish the phospholipids of neuronal films. Prostaglandins, leukotrienes, and free radicals aggregate, and intracellular proteins and compounds are denatured. Cells at that point swell, a cycle called cell, or cytotoxic oedema. Comparative anomalies influence mitochondria, even before other cell changes are apparent.

CONCLUSION

At last this work finishes up, the wonder of cerebrovascular autoregulation is properly presented here. Over a scope of mean blood weights of around 50 to 150 mm Hg, the little pial vessels can expand and to tighten so as to keep up CBF in a moderately restricted range. This convenience in the end fizzles at the limits of pulse, after which CBF follows foundational pressure inactively, either

falling steeply or ascending to levels that harm little vessel dividers. The conditions wherein the restrictions of autoregulation are surpassed are at the limits of hypertensive encephalopathy toward one side and circulatory disappointment at the other.

REFERENCES

1. Ray BK, Hazra A, Ghosal M, Banerjee T, Chaudhuri A, Singh V, et al. Early and delayed fatality of stroke in Kolkata, India: Results from a 7-year longitudinal population-based study. *J Stroke Cerebrovasc Dis.* 2013;22:281–9.
2. Kaul S, Sunitha P, Suvarna A, Meena AK, Uma M, Reddy JM. Subtypes of ischemic stroke in a metropolitan city of south India (one year data from hospital based stroke registry) *Neurol India.* 2002; 50:S8–14.
3. Chopra JS, Prabhakar S, Sodhi JS. Stroke in young: A clinico-radiological study. *Neurol India.* 1979b; 27:160–9.
4. Dalal PM, Shah PM, Aiyar RR, Kikani BT. Cerebrovascular disease in west central India. A report on angiographic findings from a prospective study. *Br Med J.* 1968; 3:769–74.
5. Padma MV, Gaikwad S, Jain S, Maheswari MC, Misra NK. Distribution of vascular lesions in ischemic stroke: A magnetic resonance angiographic study. *Natl Med J India.* 1997; 10:217–20.
6. Blečić S, Bogousslavsky J. Stroke in young adults. In: Barnett HJ, Mohr JP, Stein BM, Atsu FM, editors. *Stroke: Pathophysiology, diagnosis and Management.* 3rd ed. New York: Churchill Livingstone; 1998. pp. 1001–12.
7. Dash D, Bhashin A, Pandit AK, Tripathi M, Bhatia R, Prasad K, et al. Risk factors and etiologies of ischemic strokes in young patients: A tertiary hospital study in north India. *J Stroke.* 2014; 16:173–7.
8. Bansal BC, Gupta RR, Prakash C. Stroke during pregnancy and puerperium in young females below the age of 40 years as a result of cerebral venous sinus thrombosis. *Jpn Heart J.* 1980; 21:171–83.
9. 48. Dalal PM. Strokes in the young in west central India. *Adv Neurol.* 1979;25:339–4
10. Sridharan R. Risk factors for ischemic stroke: A case-control analysis. *Neuroepidemiology.* 1992; 11:24–30. [PubMed]
11. Kulshrestha M, Vidyanand Analysis of risk factors and outcomes of cerebrovascular disease in northern India. *J ClinDiagn Res.* 2013;7:127–31. [PMC free article] [PubMed]
12. Nongkynrih B, Acharya A, Ramakrishnan L, Ritvik, Anand K, Shah B. Profile of biochemical risk factors for non communicable diseases in urban, rural and periurban Haryana, India. *J Assoc Physicians India.* 2008; 56:165–70.
13. Lipska K, Sylaja PN, Sarma PS, Thankappan KR, Kutty VR, Vasana RS, et al. Risk factors for acute ischemic stroke in young adults in South India. *J NeurolNeurosurg Psychiatry.* 2007; 78:959–63.
14. Hassan KM, Verma A, Prakash A, Chandran V, Kumar S, Banerji A. Prevalence and association of lifestyle factors with extracranial carotid atherosclerosis in non-cardioembolic anterior circulation strokes in adult males less than 50 years: One year cross-sectional study. *Ann Indian Acad Neurol.* 2013; 16:516–20.
15. Gunaratne A, Patel JV, Potluri R, Gammon B, Jessani S, Hughes EA, et al. Increased 5-year mortality in the migrant South Asian stroke patients with diabetes mellitus in the United Kingdom: The West Birmingham Stroke Project. *Int J ClinPract.* 2008; 62:197–201.