



A Case Report on Treatment Outcomes of 50 Years Old Hypertensive Female with Intracranial Haemorrhage

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Introduction: The burden of stroke is strongly affected by ageing. Intracerebral haemorrhage (ICH) has catastrophic effects, and treatment options are limited. ICH has long been considered to be the stroke specific type with the worst diagnosis. Hypertensive Intracranial Haemorrhage is a form of stroke that occurs when an artery in the brain bursts and the blood spreads to surrounding areas. Due to this bleeding, permanent damage occurs to brain cells. Swelling of brain tissues occurs from annoyance due to trauma. This condition is known as cerebral oedema. The collection of blood is called a hematoma. Due to hematoma, the pressure on nearby tissues increases and decreases crucial blood flow and persistently destroys brain cells.

Case Presentation: This is a case of 50 year old hypertensive female with intracranial Haemorrhage. Her diagnostic CT Brain (plain) was done. Complete blood investigations were done. She had history of Hypertension since 24 years and vomiting for 2-3 times.

Therapeutic Intervention and Outcomes: In the present case received Inj. Cefrizonone 1 gm IV, bd, Inj. Pan 40mg iv od, Inj. Emset 4mg iv tds, Inj. Limsol 100 ml tds and tab Telmakind 40 mg

BD and all other investigation done. No challenges were reported in therapeutic intervention. Patients blood pressure was managed and controlled and further progression of hematoma was prevented.

Conclusion: Reduction of hypertension can be done through awareness, screening and early management of chronic diseases.

Keywords: Hypertension; intracranial; hemorrhage; vomiting.

1. INTRODUCTION

The possibility of hypertension is the powerful modifiable risk factor for intracerebral haemorrhage, and it rises with age (ICH). The scientific information is essential on common chronic degenerative diseases for specific age group of people. Hypertensive Intracranial Haemorrhage can be identified as a stroke.(1) This stroke is caused by the brain's artery breaks out in and spreading of blood and bleeding begins from nearby tissues. Damage of brain cells is caused due to bleeding [1].

Swelling of brain tissues can be due to blood from infuriation due to trauma and it is called as cerebral oedema. The collection of blood and mass making is called a hematoma. Due to this condition, the pressure increases on surround tissues and essential blood flow decreases and causes permanent damage to brain cells [2].

Intracranial haemorrhage (ICH) is responsible for stroke in the 15% cases with poor outcomes and increased death rate. Diverse pathology can be the cause for high mortality rate [2]. There is diversity in symptoms of Intracranial haemorrhage. In some cases, the major hemogenic symptoms like trauma, haemorrhagic conversion of ischemic infarction, hypertension, vasculitis, and venous sinus thrombosis have seen. (2) Nerve symptoms like cerebral amyloid antipathy, cerebral aneurysms, and cerebral arteriovenous malformations can also be faced in some cases of ICH [2]. Intracranial hemorrhage includes epidural hematoma, subdural hematoma, subarachnoid hemorrhage (SAH), intraventricular hemorrhage (IVH), hemorrhagic transformation of ischemic stroke (HT), venous hemorrhage from cortical vein or sinus thrombosis and intracerebral hemorrhage [3].

Intracerebral hemorrhage accounts for morbidity and mortality rates for 10–15% of all strokes. Over the last 30 years, the high rate of mortality and morbidity have not changed [2]. Range of mortality depends upon the location of the hemorrhage and mortality range can be from

51% to 65% in one year. Possibility to occur half of the deaths can be in the first two days [3]. The prevalence rate of hemorrhage is found to be variable with age. The incidence rate is higher in men than in women for hemorrhage [3].

2. CASE PRESENTATION

2.1 Patient Information

A 50 years-old Hypertensive had H/O fall in house on date 13/02/2021 and H/O vomiting about 2-3 episode. She was known case of hypertension since twenty four years on tablet Telmakind . Her body mass index (BMI) was 25.77 Kg / m2.

2.2 Patient History:

There was no history of seizure and bladder & bowel symptoms. H/O hypertension since twenty four yrs on tab.Telmakind 40 mg.

2.3 Clinical Findings

On general examination patient was conscious, oriented and there is associated high-risk factor i.e. hypertension.

2.4 Timeline

The patient was hypertensive and on tab Telmakind 40 mg. Her CT Brain plain and Blood investigations were done.

2.5 Diagnostic Assessment

Repeated CT Scan plain, all blood investigation done. Complete Hemogram and Urine tests were done.

2.6 Diagnosis

Hypertensive intracranial Haemorrhage with vomiting since 2-3 episode with H/O hypertension.

2.7 Therapeutic Intervention

In the present case study she having received Inj. Cefrizon 1 gm IV, bd, Inj. Pan 40mg iv od, Inj. Emset 4mg iv tds, inj. Limsol 100 ml tds and tab Telmakind 40mg BD and all other investigation done. No challenges were reported in therapeutic intervention.

2.8 Follow-Up and Outcomes

In spite of all care patient progress was good. Patients' Blood Pressure control report was satisfactory (less than 140 mm Hg). Follow-up care related to blood pressure. She was advised to strictly avoid taking salt containing diet and to take complete bed rest.

3. DISCUSSION

The most lethal type of stroke is ICH [3], The most critical modifiable risk factor in spontaneous ICH is chronic arterial hypertension [3]. There are other identified risk factors for ICH include age with each decade from 50 years of age, and high alcohol consumption factors that may affect results after ICH are hematoma volume and location, hematoma expansion, age, GCS score on presentation, intraventricular extension and anticoagulant use [4]. After prediction of 30-day death rate and functional consequence at 1 year, ICH score can developed and identified [4]. Number of patients die from ICH within the starting days of hospitalization due to presumed substandard result and this happen due to removal of care. None of the prevailed prognosis models was proved authentic, counting the ICH score [4]. According to assumption of many case studies, removal of support and initial care restrictions within the first day of hospitalization are responsible factor for low result [5]. This raises concerns for 'self-fulfilling prophecies'. USA was not low as China in ICH mortality rate. In China, it is due to less withdrawal of life support. Older adults with acute ICH experience poor results compared with their younger counterparts, including death, dependency and HRQoL.

There are some important factors which mostly affect haemorrhagic stroke. Increasing age is important factor which is responsible for severe haemorrhagic stroke and is related with increasing death or dependency. During diagnosis, this information will play key role for clinicians as guidelines [4]. Specific treatment is not invented up to date for ICH. With the proper

risk stratification and management, understanding risks factors and predictors of ICH, ICH treatment is given to the patients [4].

Age is most common risk factor related with stroke [5]. Advanced age can become reason for bad clinical consequences in several cases. Some natural and pathological changes take places with aging can give numerous intimation for the body [5]. Changes to the cardiovascular and central nervous systems indicate many other harmful factors for ICH [5]. Commonly, the tendency of an aging population, the rise in prevalence rates for many comorbidities and strokes take place with aging [5]. The extensive conditions are the possibility risk of ICH in elder or aged persons. Huge possibility is to cause ICH in elderly persons and it is extreme risk for health of elders [6]. There is no proper treatment to cure for ICH. In the case of ICH, Age criteria may be individually or directly related to the hypertension. Hypertension is identified as the pathology of multiple risk factors of stroke. (3,5) There are age related changes like cerebrovascular system and the aging brain which affects body in aged persons and it is most significant in case of ICH [3,6].

Hypertension and diabetes mellitus may also responsible for changes of the cerebral vasculature [6]. The structural changes in the brain's vasculature create the parenchyma. Due to the parenchyma, injury become more susceptible and possibility to cause stroke increases [5,6]. The endothelial damage, changes in elasticity, or fluctuations in blood flow and pressure incriminate chronic diseases such as hypertension, atherosclerosis, diabetes, and atrial fibrillation. These diseases can produce risks of neurologic injury. The prevalence of chronic conditions may be due to rise in age [6].

New studies are currently being conducted to assess the safety of removing intracerebral hemorrhage using a combination of minimally invasive surgery and clot lysis with rtPA [6,7]. There are some variations between hypertensive very elderly patients who present with ICH and their younger counterparts; however, these differences do not seem to have a major effect on the immediate outcome [2,5,7]. Patients with hypertensive ICH who are very old have a different risk profile and a different long-term prognosis, which is affected by biological factors other than age [2,3,6,7]. Studies on hypertension related geriatric problems were reported [8-10]. Pote et al. reported on computed tomographic

evaluation of intracerebral hemorrhage [11]. Related study was also reported by Gupta et al. [12], Khatib et al. [13,14].

4. CONCLUSION

There are no particular treatments that boost the outcome after an ICH. Despite the fact that rFVIIa reduces hematoma expansion, early Phase III findings showed no decrease in serious impairment or mortality rates after 90 days. We have revealed that increased age factor can boost the chronic diseases and contribute to cause ICH. With the increased age factor, care should be increased to avoid ICH.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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