

Brainstem hemorrhage case series

Takeuchi et al. retrospectively reviewed 212 consecutive patients with PBH and analyzed the impact of the clinical or radiological parameters on the outcome of patients with PBH.

Of the 212 patients, 134 (63.2%) were male and 78 (36.8%) were female, with an age range of 17-97 years (mean, 60.3 years). The median admission GCS score was 4. The outcomes included a good recovery in 13 patients (6.1%), moderate disability in 27 (12.7%), severe disability in 27 (12.7%), a vegetative state in 23 (10.8%), and death in 122 (57.5%). A multivariate analysis demonstrated bilateral hematoma extension, a GCS score ≤ 8 , the presence of hydrocephalus, gender, and the hematoma volume to all be significantly associated with the 3-month mortality, while the GCS score ≤ 8 , the presence of a pupillary abnormality, and the hematoma volume were found to be associated with the 3-month poor outcome.

The identification of these factors is therefore considered to be useful for managing patients with PBH¹⁾.

Thirty-two patients with CT-documented primary brainstem haemorrhage were reviewed retrospectively to obtain a clearer overall clinical picture, especially of the severely disabled survivors. They were divided into 3 groups according to outcome: eleven cases (Group 1) died within 1 month following haemorrhage, 11 cases (Group 2) survived but became bedridden, necessitating full living support, and 10 cases (Group 3) showed minimal neurological deficits and resumed normal activities. Owing to CT and improved critical care, the survival rate was 66% for the whole series. Group 2 comprised 34% of all cases. These patients were mostly alert, quadriplegic, and communicated only with great difficulty. The most common initial symptoms and CT finding in each group were as follows; Group 1: unconsciousness, respiratory disturbance, negative light reflex, tachycardia, and haematoma greater than 3.0 cm; Group 2: disturbance of consciousness, respiratory disturbance, positive light reflex, normal heart rate, and 2.0 greater than haematoma less than 3.5 cm; and Group 3: alertness or only slight disturbance of consciousness, normal respiration, positive light reflex, normal heart rate, haematoma less than 2.5 cm. Although there is an overlap among them, these findings will be useful to distinguish the three groups from each other. Patients with disturbance of consciousness, respiratory disturbance, positive light reflex, normal heart rate, and 2.0 greater than haematoma less than 3.5 cm, have a chance to survive, but in severely disabled condition, if they were treated with vigorous intensive care in the acute stage²⁾.

15 patients were examined with a 0.5-T MR scanner with inversion-recovery (IR) and T2-weighted spin-echo (SE) images. In the acute stage (up to the sixth day), hematomas were hypo- or isointense on IR images and isointense and then hypointense on SE images. In the subacute stages (the seventh day to 2 months), hematomas changed from hypo- or isointensity to hyperintensity centripetally on IR images and to hyperintensity on SE images. Parenchymal reactions were hypointense first on SE images and then on IR images. In the chronic stage (over 2 months), hematomas "disappeared" and the parenchyma was hypointense on both IR and SE images. The superior clinical efficacy of MR imaging relative to CT for the detection of hemorrhage was obvious except in the acute stage, when hematomas had an intensity similar to that of the adjacent brainstem, and the patients usually were in serious condition³⁾.

1)

Takeuchi S, Suzuki G, Takasato Y, Masaoka H, Hayakawa T, Otani N, Yatsushige H, Shigeta K, Momose T, Wada K, Nawashiro H. Prognostic factors in patients with primary brainstem hemorrhage. Clin Neurol Neurosurg. 2013 Jun;115(6):732-5. doi: 10.1016/j.clineuro.2012.08.022. Epub 2012 Sep 1. PubMed PMID: 22944466.

2)

Komiyama M, Boo YE, Yagura H, Yasui T, Baba M, Hakuba A, Nishimura S. A clinical analysis of 32 brainstem haemorrhages; with special reference to surviving but severely disabled cases. Acta Neurochir (Wien). 1989;101(1-2):46-51. PubMed PMID: 2603767.

3)

Komiyama M, Baba M, Hakuba A, Nishimura S, Inoue Y. MR imaging of brainstem hemorrhage. AJNR Am J Neuroradiol. 1988 Mar-Apr;9(2):261-8. PubMed PMID: 3128075.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=brainstem_hemorrhage_case_series

Last update: **2024/06/07 02:51**

