Spontaneous Brain Hemorrhage: What Treatment Should We Recommend?

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THE INCIDENCE OF BRAIN HEMORRHAGE due to hypertension has declined over the past several years in this country, but the problem of brain hemorrhage remains an important cause of death and disability. 

In Japan the death rate from cerebral hemorrhage has also dropped but the problem is still serious and the death rate from hypertensive cerebral hemorrhage per 100,000 population is higher than in other countries.

The advent of the computed tomographic (CT) scan a decade ago provided the ability to determine accurately the site and the size of a brain hemorrhage, the degree of surrounding edema and the presence of ventricular enlargement. In addition, patients with brain hemorrhage could be followed easily with this noninvasive study. How much have this remarkable diagnostic capability and new treatment programs improved the prognosis, not only for survival, but for better quality of life? What is the place of intensive medical treatment and continuous monitoring of intracranial pressure? What, if any are the indications for surgery on a patient with brain hemorrhage. It is apparent that in spite of a vast amount of literature we do not have the answers to many of the questions regarding treatment.

In this issue of STROKE there are six original contributions, four from Japan, one from Denmark and one from the United States, which add new information. These are complemented by a Progress Review. The article by Kwak et al, provides new data about the criteria to predict the prognosis of thalamic hemorrhage in the acute phase. This study confirms previous reports that there is a significantly worse prognosis if there is a reduced level of consciousness or the hematoma is over 30 mm in diameter. However, because of a lack of controlled study, conclusions regarding treatment with ventricular drainage cannot be stated and there is no discussion of the effects on outcome by the medical treatment the patient might have received.

The report by Waga et al concludes that in patients with hypertensive putaminal hemorrhage, mortality is statistically significantly less with medical treatment. However, there is no mortality in grades 1 or 2 in either the medical or surgical treatment groups and there is a disproportionate number of patients in those grades in the medical group. If one looks only at grades 3 to 5, where all the mortality occurred, there is no statistical difference in the results of treatment. Outcome in this series depends primarily on the size and extension of the original hemorrhage.

In the report by Tapia, Kase, Sawyer and Mohr the CT scan findings are discussed in relationship to the uncommon clinical observation of pure motor hemiparesis with putaminal hemorrhage and the radiographic signs that indicate a good prognosis. There is no discussion of what if any treatment was used. The study by Nakajima calls attention to the fact that with the diagnosis of pontine hemorrhage by CT scan the incidence of useful survival is higher than generally reported. Again, there is no discussion of the treatment used.

The presentation by Nedergaard, Klinken and Paulson documents in an autopsy study the high incidence of secondary brain stem hemorrhage in patients with cerebral hemorrhage. In the article by Goto et al, a clinicopathological study provides new data about the human secondary gustatory pathway.

We need more information about the treatment that has been used when either a single case or a series of patients with spontaneous brain hemorrhage is reported. Haines has emphasized that a clinical treatment study must be designed prospectively to provide an adequate number of patients and consider the questions of statistical power so that there is a reasonable chance of obtaining a correct answer to the questions being asked. The Progress Review outlines current guidelines for the medical and surgical treatment of patients with brain hemorrhage. Unless we have good, well-designed, prospective clinical studies we will not be able to answer the questions that have been posed and improve the outcome for these patients.

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References
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