

Blood Pressure Control is Important for Primary and Secondary Prevention of Intracranial Hemorrhage in Taiwan

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Stroke is the second or third leading cause of death in Taiwan in recent years and is one of the major diseases that cause severe neurological deficit. It is reported that in Taiwan about 60% of the hospitalized patients dying of stroke suffered from intracranial hemorrhage (ICH), denoting an important role of ICH in causing fatal stroke⁽¹⁾. The incidence of ICH was reported higher in Taiwan (about 35% in all strokes)⁽²⁾ than the reported 11% in USA⁽³⁾ and in Switzerland⁽⁴⁾, however, is similar to that in Korea⁽⁵⁾ and Japan⁽⁶⁾. The stroke incidence study in Ilan showed the age-adjusted incidence rate for ICH is higher than that in Caucasians and is similar to that reported in Japan from 1974 to 1983⁽⁷⁾.

Yen et al. from Kaohsiung Veterans General Hospital have done a hospital-based study and found that recurrent primary ICH is not uncommon⁽⁸⁾. According to their study and the review of literature, the incidence of recurrent primary ICH is between 4.9% and 24%⁽⁹⁻¹⁴⁾. From the summary of series of recurrent primary ICH in Table 3, Yen et al. showed that the recurrent ICH of lobar-lobar pattern is more common in western countries^(11,13,14) with the frequency ranged from 6.4% to 24% and ganglion-ganglion pattern is more common in Asian countries^(5,12,15-19) with the frequency of 1.8% to 11%. Their result implicates the importance of cerebral amyloid angiopathy as the main cause of recurrent primary ICH in western countries and hypertension in Asian countries. As to the recurrent hypertensive ICH, the study by Lai et al. reported 3.6% in young stroke in

Taiwan⁽²⁰⁾ which is less than the reported 30% by Ruiz-Sandoval et al.⁽²¹⁾. The studies in Asian countries showed the frequency is between 1.8% and 11%^(6,15,16,19,22), and the frequency in Taiwan is 4.8%-5.3%^(17,18).

The high frequency of ICH in Taiwan may indicate the importance of blood pressure control. The study of Yen et al. demonstrates the different mechanism of recurrent ICH between western and Asian people and further implies that blood pressure control is important not only for primary prevention but also for secondary prevention of ICH in Taiwan.

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