

Hemorrhage

Neurosurgical Types

By Localization

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Hemorrhage volume is a powerful predictor of 30-day mortality after [spontaneous intracerebral hemorrhage](#) (ICH). We compared a bedside method of measuring CT ICH volume with measurements made by computer-assisted planimetric image analysis.

The formula $ABC/2$ was used, where A is the greatest hemorrhage diameter by CT, B is the diameter 90 degrees to A, and C is the approximate number of CT slices with hemorrhage multiplied by the slice thickness.

The ICH volumes for 118 patients were evaluated in a mean of 38 seconds and correlated with planimetric measurements ($R^2 = 9.6$). Interrater and intrarater reliability were excellent, with an intraclass correlation of .99 for both.

Kothari et al., conclude that ICH volume can be accurately estimated in less than 1 minute with the simple formula $ABC/2$ ¹⁾.

1)

Kothari RU, Brott T, Broderick JP, Barsan WG, Sauerbeck LR, Zuccarello M, Khoury J. The ABCs of measuring intracerebral hemorrhage volumes. Stroke. 1996 Aug;27(8):1304-5. PubMed PMID: 8711791.

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