Hematoma growth

see Spontaneous intracerebral hemorrhage expansion

Ninety-three patients with bilateral CSDH who underwent unilateral bur hole surgery at Aizu Chuo Hospital were included in a retrospective analysis. Findings on preoperative MRI, preoperative thickness of the drained hematoma, and the influence of antiplatelet or anticoagulant drugs were considered and evaluated in univariate and multivariate analyses.

The overall growth rate was 19% (18 of 93 hematomas), and a significantly greater percentage of the hematomas that were iso- or hypointense on preoperative T1-weighted imaging showed growth compared with other hematomas (35.4% vs 2.3%, $p < 0.001$). Multivariate logistic regression analysis showed that findings on preoperative T1-weighted MRI were the sole significant predictor of hematoma growth, and other factors such as antiplatelet or anticoagulant drug use, patient age, patient sex, thickness of the treated hematoma, and T2-weighted MRI findings were not significantly related to hematoma growth. The adjusted odds ratio for hematoma growth in the T1 isointense/hypointense group relative to the T1 hyperintense group was 25.12 (95% CI 3.89-51.58, $p < 0.01$).

The findings of preoperative MRI, namely T1-weighted sequences, may be useful in predicting the growth of hematomas that did not undergo bur hole surgery in patients with bilateral CSDH [1].

1)
Fujitani S, Ishikawa O, Miura K, Takeda Y, Goto H, Maeda K. Factors predicting contralateral hematoma growth after unilateral drainage of bilateral chronic subdural hematoma. J Neurosurg. 2017 Mar;126(3):755-759. doi: 10.3171/2016.1.JNS152655. PubMed PMID: 27081904.