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Ichimura et al. report the autologous bone dust technique, which uses autogenous bone dust generated during burr hole creation to prevent cosmetic deformity.

The autologous bone dust technique was performed for 51 sides on which burr hole surgery was conducted mainly for chronic subdural hematoma and stereotactic hematoma removal. As much bone dust as possible was collected during the burr hole creation and preserved until closure and the burr hole was plugged with the autologous bone dust. The skin depression after surgery was classified as “no or mild” or “severe” by palpating the postoperative scar. The postoperative osteogenesis was evaluated with a bone window or three-dimensional bone computed tomography (CT).

The rate of no or mild skin depression was 86.3%. Osteogenesis in the bone window or on three-dimensional bone CT was observed in 88.6% of the cases with no or mild skin depression, whereas no osteogenesis was found in 11.4%. The rate of no or mild skin depression in patients aged greater than 82 years old (74.1%) was significantly lower than that in those aged less than 82 years old (100%).

The autologous bone dust technique is effective in preventing skin depression after one burr hole surgery without using artificial materials [1].

1)
Ichimura S, Fukuchi M, Takahara K, Nakaya M, Yoshida K, Mochizuki Y, Fujii K. Autologous bone dust technique for one burr hole surgery to prevent severe skin depression. Clin Neurol Neurosurg. 2018 Nov 26;176:41-43. doi: 10.1016/j.clineuro.2018.11.019. [Epub ahead of print] PubMed PMID: 30502665.