Savardekar and Salunke presented a very interesting case report of a seldom complication after evacuation of a chronic subdural hematoma (cSDH). A 65-year-old male suffering from headache for 10 days underwent an uneventful operation and developed an ipsilateral bleeding immediately post-surgery. Based on a normal coagulation and stable hemodynamics several causative mechanisms are discussed.

The most probable mechanism is that a rapid intraoperative parenchymal shift damaged vessels at the boundary layer between the intracranial solid and liquid components. Therefore, this event should be considered as a technical complication. The authors performed two burr holes, irrigated until the hematoma was washed out and kept the dural opening patent instead of inserting a drainage—so far a well-known procedure.

The hematoma fluid was under high pressure and drained off uncontrolledly, which is in the nature of this intervention. Only an intermittent covering and stepwise drainage, as the authors suggested, would have prevented from this bleeding.

It should be considered that in the absence of vascular diseases and brain atrophy the brain can still be expandable at 65 years. This is aggravated by a relatively short time of the space occupying effect of the cSDH, because the clinical symptoms lasted only for 10 days. Intraoperatively the proof of a re-expanding brain is given by the high pressure, under which the fluid has been drained.

Regarding to the surgical procedure following strategy has become apparent: The first-line treatment for most cSDH is a burr hole craniostomy. In contrast to a twist drill craniostomy burr holes have a lower reoperation rate and offer the best cure to complication ratio. Santarius found a significant advantage for the use of a drain compared to a sole burrhole craniostomy. Because of a significant reduction of recurrence this randomized trial was even stopped early.

Further, residual free air impedes brain from re-expanding, too. Thus, a closed-way technique avoids to get air drawn into the subdural space. The surgical approach should be over the thickest part of the hematoma. Additionally the patient is positioned in a way, that the single burr hole comes to the highest point in order to avoid pneumocephalus again.

Despite the rarity of such a complication this article encourages surgeons not to underestimate a beginners operation.
References


