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Editorial

Endoscope-Assisted Evacuation of Septated Chronic SDH: Need of the Hour

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Chronic subdural hematoma (cSDH) is a common occurence in the elderly, often encountered in daily neurosurgical practice. While a homogeneous or well-liquefied CSDH has a standard line of treatment through burr hole and irrigation, the management of *septated/loculated chronic subdural hematoma* with multiple membranes has always remained controversial [2]. The neomembranes forming septations prevent evacuation of clots through burr holes, and the small remaining loculi with clots will enlarge overtime to cause recurrence [1].

The septations lead to inadequate expansion of the brain parenchyma preventing obliteration of the subdural space, that may lead to recurrence. Hence to prevent recurrence in septated Chronic SDH, membranectomy is considered essential [3].

Endoscopy provides a feasible alternative: through a minicraniotomy (usually 3 cm × 3 cm), rigid endoscopes are used for visualization of the entire subdural space. The 0° scope is routinely used for inspection of the cavity; the scope is held in the left hand of the surgeon and the right hand is used to hold the grasping forceps or to place the irrigation tubes under vision for intraoperative irrigation.

The enlargement of the subdural space by the clots and membranes overtime provides enough space for the movement of the endoscope. The membranes visualized are dissected and gently peeled using angled grasper forceps under vision. Both the outer and the inner membranes are removed as much as safely possible under vision. Any significant neo vessel visualized in the vicinity of the craniotomy can be coagulated and cut [4].

During removal of the membranes, some bleeding is always encountered. This bleeding in the deeper recesses can be stopped using irrigation with warm saline and placing some surgical over the raw surface. An irrigation tube with side holes, e.g. feeding tube, can be introduced under vision to the far most edges of the subdural cavity and irrigated with warm saline to remove clots from the inaccessible areas. The fogging of endoscope can be handled with irrigation. Copious irrigation not only helps in clearing the field of vision but also helps in hemostasis. After satisfactory membranectomy and hemostasis, a subdural drainage tube is put in the dependent part of the subdural space.

The dura mater is closed with a small pericranial patch graft. The bone flap is refixed with titanium miniplates. Skin incision is closed in layers.

I firmly believe that endoscope-assisted evacuation of sCSDH helps in reducing recurrence. This is because breaking up of most of the loculations ensures removal of clots that are present much beyond the limits of the minicraniotomy, not otherwise accessible. Burr holes alone usually don't work for septated/loculated collections and are associated with a high risk of recurrence [5].

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