occlusion of ICA would put the patient at a high risk of cerebral ischemia in the future.

Xiao Dong, Ying Zhang, Jian-min Zhang, Jun Yu
Department of Neurosurgery, The Second Affiliated Hospital of Zhejiang University, School of Medicine, 88 Jiefang Road, Hangzhou - 310 009, China. E-mail: airforce7878@163.com

References


Skin incision is the standard question mark incision [Figure 1a]. Bone flap like the decompressive
craniectomy flap is made keeping the temporal part attached to the muscle. The portion of the bone flap removed is as shown in Figure 1b, and temporal craniectomy extends to the floor of the middle cranial fossa (with rongeurs) at the origin of the zygomatic arch. The bone flap is then divided into four quadrants with the periosteum in situ [Figure 1c]. Then, the periosteum of the free bone pieces are sutured with loose prolene/silk sutures [Figure 1d] to the other pieces so as to connect all the four bone pieces together by the periosteum and then connected to the periosteum of the calvaria under the galea [Figure 1e]. The dura is opened in a stellate fashion and a synthetic dural patch is kept tucked under the original dura over the brain to prevent the brain from bulging out [Figure 1f]. The bone flap is now in its place as four pieces sutured together with loose sutures and connected by the periosteum only [Figure 1g]. As the brain expands, the bone flaps float out in all four different directions giving space for the swollen brain [Figure 1h].

A 24-year-old man presented with an acute subdural hematoma (SDH) of over 10 mm thickness and about 12 mm mid-line shift following a road traffic accident. He underwent FoQOsD craniotomy [Figure 2a-d]. His postoperative scans showed significant reduction in midline shift [Figure 3a and b]. Midline shift in computed tomography (CT) scan is a good marker of raised ICP.[3] This new technique provided almost similar results regarding the normalization of the mid-line shift in CT when compared with the conventional DC technique. However, ICP was not monitored in this patient. This is a major limitation. Further studies including a large number of patients with ICP measurement are warranted to establish that this technique is associated with reduction in ICP.

Compared with the hinge craniotomy,[4] our procedure is likely to give lesser resistance for the brain to expand, which usually takes place maximally at the center of the opening where the stellate durotomy is performed. As the brain expands in a hemispheric fashion out of the craniotomy defect, the bone flap pieces curtain outwards in four different directions offering minimum resistance to the brain swelling out of the durotomy site [Figure 2e], whereas in the hinge craniotomy the expanding brain is resisted to a certain extent by the bone flap directly over it [Figure 2f]. After a few months, the bone pieces gradually fall in place like a jigsaw and fuse by the time the swelling of the brain subsides. Figure 3a and b shows the preoperative and postoperative CT scans of FoQOsD craniotomy and Figure 3c and d shows the preoperative and postoperative CT scans of conventional DC, which are comparable. The final appearance of the patient 3 months after FoQOsD craniotomy [Figure 3e] is comparable to that of a patient
Pediatric gliosarcoma of thalamus

Sir,
Occurrence of pediatric gliosarcoma (GS) in the thalamic region has not been documented, hence this report.

A male child aged 11 years presented with intermittent headache and vomiting of one-month duration. Neurologic examination revealed bilateral early papilledema. Magnetic resonance imaging (MRI) brain showed a large round well-defined mass lesion in the left thalamic region extending into the occipital horn of the lateral ventricle, involving the left temporal lobe, left internal capsule, pineal region, splenium of corpus callosum and left cerebral peduncle. The tumor was heterogeneously intense on T2-weighted and FLAIR images and was seen extending into the occipital horn of the left lateral ventricle [Figures 1a and b]. Evidence of periventricular cerebrospinal fluid (CSF) seepage, midline shift and mass effect over third ventricle were seen [Figure 1b]. Focal areas of diffusion restriction, perifocal edema and contrast ring enhancement were seen [Figures 1c and d]. The preoperative diagnosis was high-grade glioma of thalamus. Intraoperatively, a yellowish necrotic suckable tumor was seen arising from the posterolateral surface of the thalamus extending anteriorly to the temporal lobe, lateral ventricle and posteriorly till the atrium and posterior part of the quadrigeminal cistern with peduncular involvement. Near-total decompression of the tumor was done. Histopathology showed features of an oligoastrocytoma with marked nuclear atypia, mitotic figures, pseudopalisading necrosis and vascular endothelial proliferation [Figures 2a-c]. Interspersed with this glial component were pleomorphic spindle cells seen in fascicles or arranged around blood vessels indicating sarcomatous transformation [Figure 2d]. Gordon and Sweet reticulin stain done [Figure 3a] showed increased reticulin fibers in the sarcomatous component whereas the glial component was devoid of reticulin fibers. Both histological components expressed high MIB index upto 10-15% [Figure 3b]. The neoplastic glial cells were intensely positive for GFAP (glial fibrillary acidic protein).