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Publications

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Ferrara P, Domingo-Chiva E, Selva-Sevilla C, Campos-García J, Gerónimo-Pardo M. Irrigation with Liquid Sevoflurane and Healing of a Postoperative, Recurrent Epidural Infection: A Potential Cost-Saving Alternative. World Neurosurg. 2016 Jun;90:702.e1-5. doi: 10.1016/j.wneu.2016.02.079. Epub 2016 Feb 24. PubMed PMID: 26924116.

The general inhalation anesthetic sevoflurane can be used for the topical treatment of complicated wounds. It is applied in liquid form and may be used to irrigate the inside of cavities. Sevoflurane also exhibits in vitro antimicrobial activity. Therefore, sevoflurane may be used as an alternative to typical antibiotic or surgical treatment of complicated, localized infections.

The case of a 61-year-old male patient who suffered a cranioencephalic trauma 18 years previously is presented. The patient underwent surgeries related to the trauma on numerous occasions. To date, he has suffered various recurrent epidural abscesses, which have been treated with surgical cleaning and antibiotic treatment. In the most recent episode, he presented a frontal epidural abscess 25 mm in diameter with fistulization of the skin. The patient gave written informed consent to be treated with sevoflurane irrigation, and the Pharmacy Service authorized the off-label use. Sevoflurane was applied via a catheter placed inside the cavity during weekly outpatient procedures. The procedures began 8 weeks after the clinically and radiologically verified recovery of the abscess. By avoiding surgery and the associated hospital admission, this novel alternative may prevent patient morbidity and, furthermore, may produce important economic savings.

The treatment of complicated wounds with liquid sevoflurane may be an effective and economically efficient clinical alternative for some patients.

2013

Schwannomas are tumors derived from the Schwann cells, which form the myelin sheath of the peripheral nerves. Fewer than 1% of these tumors occur within the brain parenchyma without arising from the cranial nerves. Only 55 cases have been published after the first recorded case. We report a 17-year-old girl with a 3-month history of unspecific dizziness, unsteadiness, and headache. Magnetic resonance imaging showed a heterogeneous cystic lesion involving midbrain, pons, and left cerebellar peduncle. The patient underwent a retromastoid craniotomy with complete resection of the tumor. Pathologic examination was compatible with intraparenchymal schwannoma. Since the first case of intraparenchymal schwannoma involving the brainstem was described in 1980, only seven others have been reported. Diagnosis of intraparenchymal schwannoma is almost never made preoperatively. Immunohistochemical staining is crucial in distinguishing a Schwannoma from a meningioma, glial tumor, or metastatic tumor. Pathologic findings are those typical of acoustic neurinomas. Histogenesis of intraparenchymal schwannoma remains unclear, and several theories have been proposed to explain their origin. The recognition of this curable tumor and its differentiation from brainstem glioma, which generally has a less favorable outcome, is of obvious importance [1)].

2012

Antuña-Ramos et al. analysed 21 patients one year after malignant middle cerebral artery infarction who have undergone decompressive craniectomy determine the degree of retrospective satisfaction, they asked relatives and patients whether, now that the patient's current sequelae are known, they would have still agreed to a decompressive craniectomy.

The physical sphere is felt to be more disrupted than that concerning emotional aspects. There are no differences in the quality of life between patients who have the right or the left hemisphere affected. Patients with a better functional situation report a better quality of life. Altogether, 81% of patients said they were satisfied.

Despite the fact that all the patients show a loss of quality of life after a decompressive craniectomy, most of them seem to be satisfied with the treatment they have received, even in cases in which the dominant hemisphere is compromised or in those with a moderate-severe disability [2].

1996

Pulido Rivas P, Sola RG. [Anatomo-functional localization in cerebral cortex. Application of imaging systems as a guide for resection of cortical lesions]. Rev Neurol. 1996;24 Suppl 1:S5-61. Spanish. PubMed PMID: 9053275.

The stereoencephalography of Talairach (SEG) makes it possible to obtain an individualized anatomofunctional map, based on the proportion of the telencephalum with an inter-commissurual line CA-CP. The aim of this paper was to design a method for the preparation of these maps, without need for the use of stereotactic equipment, and to apply this to the anatomofunctional localization of cortico-subcortical lesions. With the aid of a CAD programme (AUTOCAD v. 11), the images obtained using magnetic resonance (MR), with visualisation of the CA-AP line, skull X-ray (Rx) and cerebral angiograph (ADS) were superimposed. This was subsequently squared, as suggested by Talairach, permitting comparison between the maps (by standardization of the CA-CP line at 25 mm.) or with a stereotactic map. A total of 104 patients were studied, divided into three groups: A. Control 10 patients with slight HSA, with no ADS pathology. B. Resection of the lesion. 38 patients with vascular lesions (30) or benign tumours of less than 3mm (8). C. Epilepsy. 56 patients with drug-resistant epilepsy, with or without a visible lesion on RM (26 and 30 patients respectively). Outstanding amongst the results obtained were: confirmation of the close relationship of the telencephalum with the CA-AP line. Using our method there was great precision in superimposing anatomical structures. There was an error of less than 0.5cm in superimposing the corpus callosum and the pericallosum artery or Galen's vein. This made it possible for us (in group B) to localize subcortical lesions larger than 1cm without using a stereotaxic guide. In these cases we were guided by the cortical venous pattern which led to the lesion. In group C, use of these maps allowed us to obtain a functional surgical document exactly the same as the anatomofunctional maps of the SEG of Talairach [3].

1)
Ramos AA, Vega MA, Valencia HS, García JC, Perez VC. Intraparenchymal schwannoma involving the brainstem in a young woman. Pediatr Neurol. 2013 Jun;48(6):472-4. doi: 10.1016/j.pediatrneurol.2013.02.009. PubMed PMID: 23668875.
2)
Antuña-Ramos A, Suárez-Suárez M, Álvarez-Vega MA, Álvarez de Eulate-Beramendi S, Seijo-Fernández F. [Quality of life following surgical treatment of malignant middle cerebral artery infarction]. Rev Neurol. 2012 Dec 1;55(11):651-7. Spanish. PubMed PMID: 23172091.

3)
Pulido Rivas P, Sola RG. [Anatomo-functional localization in cerebral cortex. Application of imaging systems as a guide for resection of cortical lesions]. Rev Neurol. 1996;24 Suppl 1:S5-61. Spanish. PubMed PMID: 9053275.