Thalamic Abscess

Treatment

Management of thalamic abscess is being considered as a contentious issue in neurosurgery. Regarding these lesions, besides removing the abscess, the most minimal morbidity is targeted during surgery and planning.

Neuronavigation is considered as one of the techniques that aid the neurosurgeon to augment the success of surgery and minimize the morbidity, especially in critically localized lesions, i.e., eloquent areas. Combining MR navigation with MR tractography images and using them during neuronavigation to assist endoscopic procedures may decrease the surgical morbidity as much as possible [1)].

Case reports

Ozgural et al. from Ankara reported a 5-year-old female with symptoms of altered consciousness and left hemiparesis. Her medical history pointed out that she was being followed up for a congenital cardiac anomaly consisting of transposition of the great arteries and a ventricular septal defect. A cranial MRI revealed 2 masses with peripheral contrast enhancement in the right frontal and thalamic regions. She was operated immediately and the right frontal mass, compatible with abscess, was totally excised with frontal mini craniotomy. The patient was hospitalized and followed up under intensive parenteral antibiotics. Control cranial imaging revealed progression in the size of the thalamic abscess, which was corroborative with the increased left hemiparesis. MR tractography was obtained and the patient underwent MR navigation and tractography combined neuronavigation-assisted transcranial neuroendoscopic aspiration of the thalamic abscess.

The patient was stable in the early and late postoperative periods and her hemiparesis showed a dramatic recovery with no additional neurological deficits.

Neuronavigation is considered as one of the techniques that aid the neurosurgeon to augment the success of surgery and minimize the morbidity, especially in critically localized lesions, i.e., eloquent areas. Combining MR navigation with MR tractography images and using them during neuronavigation to assist endoscopic procedures may decrease the surgical morbidity as much as possible [2)].

Dillen et al. described a novel treatment, using the Penumbra Apollo System suction/vibration aspiration (Penumbra, Almeda, CA, USA). It represents the first reported case of the device's use for treatment of an intracerebral abscess.

The patient discussed presented to the emergency department in critical condition, and was found to be suffering from a right thalamic abscess. She underwent treatment with both medical management and surgical intervention with the use of the Apollo system.

This report details a novel technique for surgical abscess drainage with an excellent clinical outcome. The aim is to provide insight into the treatment of intracerebral abscesses, the utility of the Apollo system, and the device's application beyond intracerebral and intraventricular hemorrhage [3)].

Heckmann JG, Ernst S, Scher B, Meyer B. Rapidly Growing Thalamic Abscess. Neurohospitalist. 2018 Jan;8(1):44-45. doi: 10.1177/1941874417700773. Epub 2017 Mar 24. Review. PubMed PMID: 29276565; PubMed Central PMCID: PMC5734503.

Karageorgiou I, Chandler C, Whyte MB. Silent diabetes mellitus, periodontitis and a new case of thalamic abscess. BMJ Case Rep. 2014 Jul 21;2014. pii: bcr2014204654. doi: 10.1136/bcr-2014-204654. PubMed PMID: 25053670; PubMed Central PMCID: PMC4112305.

[1] [2]
Ozgural O, Al-Beyati ESM, Kahilogullari G. MR Navigation and Tractography-Assisted Transcranial Neuroendoscopic Aspiration of Pediatric Thalamic Abscess. Pediatr Neurosurg. 2019 Sep 5:1-5. doi: 10.1159/000501914. [Epub ahead of print] PubMed PMID: 31487714.

[3]
Dillen WL, van Horne CG, Fraser JF. Novel approach to the treatment of a cerebral abscess using the Apollo vibration/suction device. J Clin Neurosci. 2018 Jul 3. pii: S0967-5868(18)30498-3. doi: 10.1016/j.jocn.2018.06.036. [Epub ahead of print] PubMed PMID: 29980473.

From:
https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=thalamic_abscess

Last update: **2024/06/07 02:52**