et al., de exacerbación del asma en un paciente intervenido de un adenoma hipofisario. Por todo ello, es imprescindible realizar una anamnesis detallada para identificar los pacientes que puedan requerir la administración de dosis mayores de corticoides para prevenir el agravamiento de patologías previas silentes.

BIBLIOGRAFÍA


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Aesthetically optimal deep brain stimulation technique in patients with alopecia

Técnica para optimizar el resultado estético de pacientes con alopecia sometidos a neuromodulación por estimulación cerebral profunda

Dear Editor,

The effectiveness of DBS is related to chronic stimulation of specific deep-seated targets in the brain. Electrode fixation is one of the important issues in the effectiveness of this therapy. It is also noted that burrhole caps yield unaesthetic elevations over the skull bone of about 0.5 cm, which can be clearly observed under the skin in hairless patients (Figure 1). Herein, the authors present two illustrative DBS cases operated according to the routine technique used in this center, proposing the use of the tissue adhesive Histoacryl® (Aesculap, Tutlingen, Germany) as a simple electrode fixation method. This adhesive is a low cost biocompatible wound-closing agent that, in our experience, saves time during...
surgery because of its fast polymerization property when in contact with CSF or distilled water. Once the surgeon has determined the target site, he irrigates the burr hole in order to fill the intracranial compartment. This fact also prevents the glue from entering the skull, avoiding direct contact with the brain. This simplified method provides a reliable stabilization, firmly attaching the DBS lead onto the skull (Figure 2 C). It additionally seals the burrhole and rules out elevations over the skull with outstanding esthetic results (Figure 2 A/B). This method has been used for many years in our service in over 250 DBS implants with less than 0.5% electrode migration. The proposed technique also permits a smaller burrhole around 6 mm what also helps to prevent CSF leak and consequently less brain shifting. The adhesive is also easily removable with blunt instruments spearing the silicon coated lead in reoperations.

**Conflict of interest**

The authors declare that they have no conflicts of interests.

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Figure 1 conception: William Omar Contreras Lopez and Erich T. Fonoff. Drawing: Danilo Costa Barbosa.

### Bibliografía


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