

**Natureza do trabalho:** Relato de caso

## TÍTULO

*DECOMPRESSIVE HEMICRANIECTOMY AND INTRACTABLE INTRAOPERATIVE BRAIN HERNIATION: THE USE OF A PLASTIC SHEET, RESEMBLING A BOGOTÁ BAG, FOR TEMPORARY SCALP CLOSURE*

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## RESUMO

**Introduction:** Decompressive craniectomy with duraplasty is a well-established procedure for the treatment of persistent elevated intracranial pressure, when optimized medical therapies have failed. Ultimately the skin edges are easily reapproximated. We describe a case of a huge intraoperative brain swelling that was refractory to standard measures and the temporary augmentation of the scalp with a sterile plastic sheet. **Case report:** C.I.R.L., a 21-year-old male, victim of a head-on motor vehicle collision, was admitted to the Emergency Room, after prehospital management. There was no major injury other than the closed-head one. He was intubated, with a Glasgow Coma Scale score of 3, and equally small pupils. The head computerized tomography scan revealed a diffuse brain swelling. An intracranial pressure monitor was placed on the right frontal lobe, and ICP was initially 15 mmHg. During the following 12 hours, the intracranial pressure ranged from 30 to 70 mmHg, including episodes of dilated nonreactive left pupil. The head CT scan revealed a left subdural hematoma and severe swelling and hypodensities in the left cerebral hemisphere, with midline shift. The patient underwent a left hemicraniectomy and hematoma evacuation. Despite standard measures, the brain remained massively herniated (“mushroom-shaped”). Regarding the eloquent brain, no tissue was removed. The duraplasty was performed using bovine pericardium patches, but the primary skin closure was precluded. Thus, a sterile plastic sheet was sewn to the skin edges with running suture. Ten days later, the plastic sheet was removed and the skin edges were approximated. **Discussion:** As far as we know, the use of a plastic sheet to provide skin augmentation, resembling a Bogota bag, in the face of massive brain herniation during decompressive craniectomy, involving an adult patient, has not been previously described in the literature. This technique may be considered a viable option.