

# APPLICATION OF INTRATHECAL BACLOFEN IN BRAIN INJURY AND DISORDER OF CONSCIOUSNESS. A CASE REPORT.

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**Introduction:** Severe brain injured patients with spasticity resistant to maximal doses of oral antispastics, are eligible to introduce Intrathecal Baclofen (IB). Some authors described an improvement in the level of consciousness (LOC) in patients with brain injury (BI), treated with IB for spasticity or disautonomy.

**Purpose:** We present a case report of a patient with brain injury who experimented an improvement in the LOC after IB.

**Method:** 42-years old woman who suffered ischemic cerebral stroke admitted at hospital in 2016. She presented spasticity and Minimal Conscious State (MCS) for 10 months. Maximal dose of oral antispastics were administrated without success (Modified Ashworth Scale-MAS- of 4), so IB test was indicated. The first test with 50mcg-100mcg was not successful. After that, she was underwent one week IB test through an external catheter. We scored the spasticity with MAS and the LOC with the Coma Recovery Scale- Revised (CRS-R). The final IB pump was implanted in the 11th month after onset.



**Results:** Apart of the improvement in the spasticity with MAS 3, we observed an unexpected improvement in the LOC: obeyed simple commands, sayed some intentional words. We scored de LOC with CRS-R during the one-week IB infusion test and compared with previous scoring (Illustration 1). Unfortunately, no CRS-R was registered when we observed the most improvement in LOC. Few days after the external catheter was removed, the LOC returned to the previous state. Due the positive results, IB pump was finally implanted and the patient reached a better LOC. Modafinilo was administrated some days before the first IB infusion, but we do not correlate it with the improvement of LOC, because it was evident only with IB and desapareed when IB was stopped even with modafinilo.

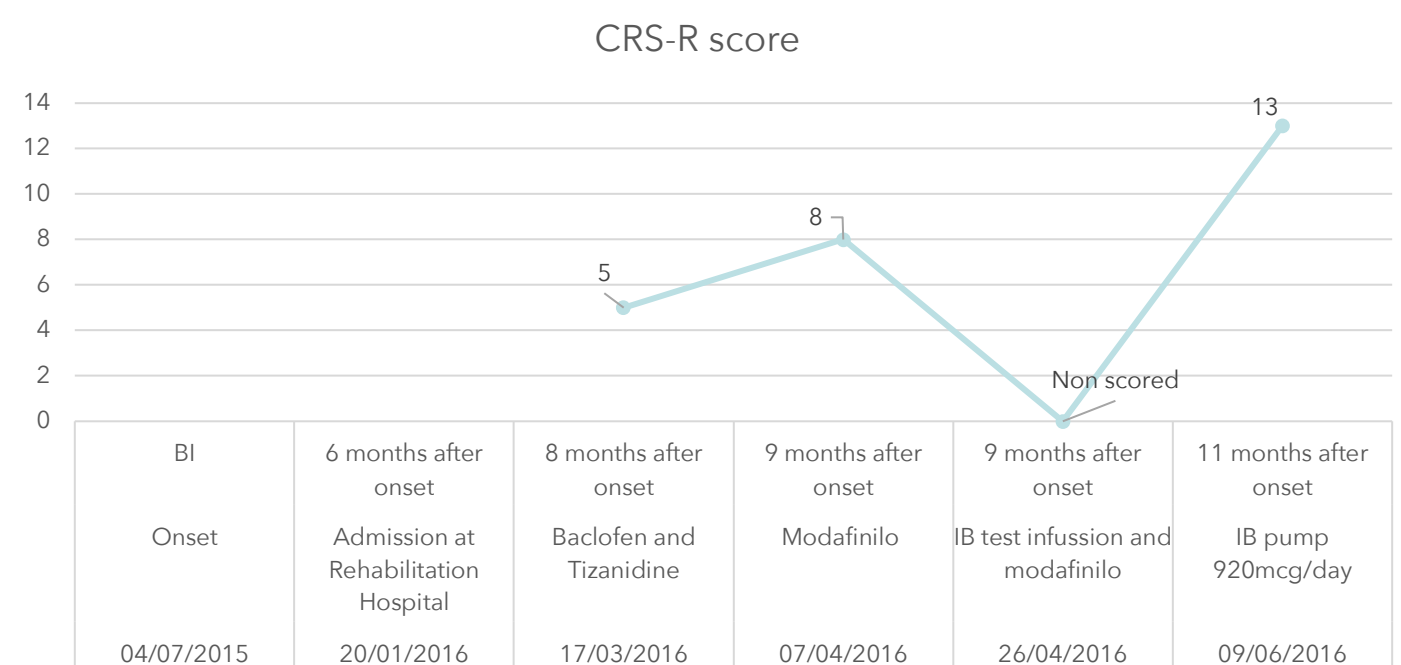


Illustration 1

**Conclusion:** IB is indicated in patients with brain injury for spasticity. We suggest the LOC as a possible outcome after IB. There is an important lack of evidence to recommend it but it is necessary to have it into account for future perspectives.

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