# Sedative

see Sedative for traumatic brain injury.

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Isoflurane

Midazolam

Flumazenil

Neuronal survival and functional recovery are reduced by sedative use in a rat model of acute brain injury.

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Sedatives and opioids used during deep brain stimulation (DBS) surgery interfere with optimal target localization and add to side effects and risks, and thus should be minimized.

To retrospectively test the actual need for sedatives and opioids when cranial nerve blocks and specific therapeutic communication are applied.

In a case series, 64 consecutive patients Zech et al. from University Hospital Regensburg, treated with a strong rapport, constant contact, non-verbal communication and hypnotic suggestions, such as dissociation to a “safe place,” reframing of disturbing noises and self-confirmation, and compared to 22 preceding patients under standard general anesthesia or conscious sedation.

With introduction of the protocol the need for sedation dropped from 100% in the control group to 5%, and from a mean dose of 444 mg to 40 mg in 3 patients. Remifentanil originally used in 100% of the patients in an average dose of 813 µg was reduced in the study group to 104 µg in 31% of patients. There were no haemodynamic reactions indicative of stress during incision, trepanation, electrode insertion and closure.

With adequate therapeutic communication, patients do not require sedation and no or only low-dose opioid treatment during DBS surgery, leaving patients fully awake and competent during surgery and testing [1].

1)
Zech N, Seemann M, Seyfried TF, Lange M, Schlaier J, Hansen E. Deep Brain Stimulation Surgery without Sedation. Stereotact Funct Neurosurg. 2018 Dec 5:1-9. doi: 10.1159/000494803. [Epub ahead of print] PubMed PMID: 30517938.