

Clinical and Psychological preliminary selection criteria for treatment with Occipital Nerve Stimulation: study in a population of drug-resistant Chronic Migraine patients

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Objectives: Chronic Migraine (CM) is, according to the International Headache Society' Classification, a disabling disorder. Preventive and symptomatic medication is ineffective for many patients, while subgroups of them may suffer "intractable" or refractory CM. Occipital Nerve Stimulation (ONS) can provide relief for patients unresponsive to conventional therapies. We report a mono-centric observational study investigating social factors and psychological aspects, which are useful to identify the "ideal" patient and can influence their own interest to ONS implantation.

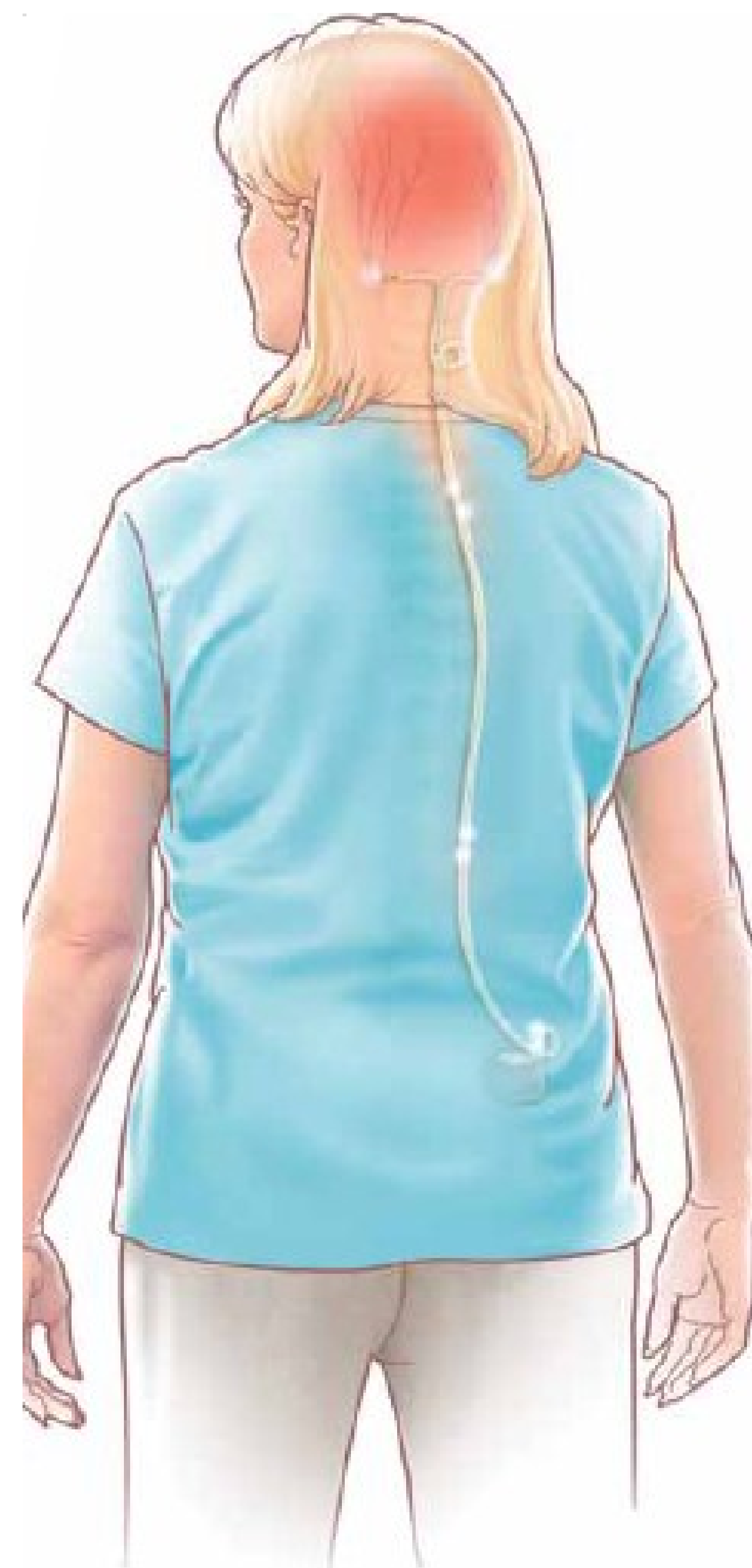
Materials: We examined all outpatient admissions occurred to the Neurological Clinic Headache Centre of "Spedali Civili Brescia" Hospital between 2010 and 2013. We enrolled those subjects with CM diagnosis at the 1st evaluation, and patients still affected at a control visit in 2013.

Methods: We collected social demographic information, clinical aspects, medical history, comorbidity, previous and current pharmacological treatments for all patients through questionnaires formulated by a multidisciplinary team (Q1). We subjected patients to the following tests: SF-12, the Migraine Disability Assessment Score Questionnaire (MIDAS) and Minnesota Multiphasic Personality Inventory - second edition (MMPI-2). Finally we asked patients if they were potentially interested to ONS (data collected by Q2).

Results: We enrolled 85 subjects (F=82%, M=18%) of 41.3 ±12.5 mean age (range 19-64). Using answers from Q1, we identified two groups of patients: group A *not eligible* (67%) and B *eligible* (23%) to ONS. Moreover, with Q2 answers we analyzed patients declared *not interested* (Group 0) and *interested* (Group 1). *Eligible* patients (B) and *interested* patients (1) were essentially the same subjects. According to the results obtained, patients interested to ONS report more frequently at the Headache Centre (p=0.026), refer more intense pain (p=0.0215) and more attacks per month (p=0.0007), have a higher MIDAS score (p=0.0024) and a worse index of physical health (PCS12; p=0.02).

Discussion: The study shows that interest and eligibility of patients to ONS are correlated with the clinical severity of their headache. This is the main factor that leads them to consider invasive therapies for headache treatment, including mini-surgical procedures. MMPI-2 does not reveal psychopathological traits.

Conclusion: Patients consider alternative invasive therapies such as ONS only as a result of the severity of their clinical condition. Therefore, for a correct selection of "ideal" eligible patients to ONS, it is fundamental that a multidisciplinary team specialized in the evaluation of patients with drug resistant CM is involved in the diagnosis.



Bibliography

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