

P71**OnabotulinumtoxinA: How and when do our patients improve?**

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Objective: To analyze the clinical characteristics of a long-term follow-up of patients with migraine in treatment with onabotulinumtoxinA.

Methods: A three-year prospective observational study. We included patients diagnosed with chronic migraine (CM) and high-frequency episodic migraine (HFEM) according to ICHD-3 beta. We collected clinical data. A comparative analysis was carried out at 6, 12, 18 and 24 months identifying response variables (frequency, intensity, analgesics intake) according to treatment and diagnosis time.

Results: Data was collected from 534 patients (84.6% women, mean age 46.9±12.8 years): 80.1% CM and 19.9% HFEM, 59.9% had medication-overuse (MOH) and 81.2% had severe disability (MIDAS). After 6 months (n=352), average headache frequency improved (-42.0%±39.1 in MC). In the following months, this reduction continued with a step-wise slope: -45.4% ± 34.2 (12 months), -48.6% ± 38.5 (18 months) and 59.4% ± 29.8 (24 months). Likewise, in CM patients, we observed and improvement in intensity greater than 50% during the follow-up (46.9% at 6 months, 50.0% at 12 months, 58.6% at 18 months, 63.9% at 24 months) and analgesics intake (81.7±59.3% at 6 months). There was also an statistically significant improvement in headache frequency, intensity and analgesics intake in HFEM patients.

An improvement in the anxiety and depression scales (HAD) at 6 months of treatment (19.0 ± 1.2 vs. 10.0 ± 5.0 with p-value <0.01, 15.8% ± 5.1% vs 7.8 ± 5.2 with p-value <0.05) was observed, and this remained stable during the rest of follow-up.

During the 24 months of follow-up, 23.2% discontinued treatment because of: clinical improvement (20.9%-CM vs. 34.2%-HFEM), lack of efficacy (46.5%-CM vs. 31.6%-HFEM) and other medical reasons (32.6%-CM vs. 34.2%-HFEM).

Conclusion: In our cohort, onabotulinumtoxinA efficacy is significant at 6 months, with further moderate progressive improvement at medium term.

The improvement in CM and HFEM is proportional and significant in terms of headache frequency, intensity, and analgesic intake.

This improvement is correlated with less anxiety and depression.

P72**The role of foods with a high glycemic index in migraine patients: a real life preliminary study**

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Introduction

Migraine is one of the main causes of disability according to the WHO. [1] Numerous progresses have been accomplished in the individuation of the subtending pathogenetic mechanisms but there are still lands to be discovered. Different predisposing and trigger factors have been identified, among these an important role is played by an incorrect diet. [2] This study aimed at evaluating retrospectively the relationship between dietary habit, and migraine frequency and disability.

Methods

We enrolled 149 consecutive patients (mean age 41 ys SD 13.2, 86% female) affected by Migraine with or without Aura referring to our Headache Centre. All patients underwent anthropometric assessment and filled a Frequency Food Questionnaire (FFQ) to assess their

dietary habit and clinical scales (BS11, PPI, BRS6, MIDAS e HIT-6) in the previous three months. All data were analysed with SPSS 25.0. The study was approved by our Local Ethical committee (prot 6.18TS CBM). Informed consent to publish has been obtained from patients.

Results

The analysis of baseline data showed average BMI 24.6 ± 4 kg/m² and Waist Circumference 83 cm; mean headache days per month 9.3 ± 7, abortive drugs per month 9.2 ± 7, MIDAS TOT 25.6 ± 33, MIDAS-A TOT 20.7 ± 18.6, MIDAS-B TOT 6.3 ± 1.9, HIT6 TOT 63.6 ± 7, BS-11 TOT 7.5 ± 1.9, PPI TOT 3.4 ± 1, BRS 6 TOT 3.7 ± 1.

We observed a correlation between sweet confectionery product (croissant, biscuits, sweets and spreads) weekly intake and BS-11 (Spearman Rho= 0.178, p= 0.04), and PPI(Spearman Rho= 0.181, p= 0.037), MIDAS- tot (Spearman Rho= 0.189, p= 0.021) and HIT6 (Spearman Rho= 0.231, p= 0.005). Weekly rice consumption had a correlation with MIDAS-B (Spearman Rho=0.223, p=0.01). Likewise the consumption of potatoes had a correlation between MIDAS- B (Spearman Rho=0.216, p=0.022) and HIT6 (Spearman Rho=0.200, p=0.034). No other relation were observed between headache frequency and disability and all other foods and drinks.

Discussion and conclusion

Literature data hypothesize that changes of blood glucose values may play a role in the pathogenesis of fasting headaches. Martins-Oliveira et al highlighted that glycemic neuroendocrine signaling modulates specific neural networks can alter the transmission of trigeminal nociceptive inputs [3]. Our study supports this hypothesis: patients consuming more frequently high-glycemic foods tend to score higher on disability scales. We can speculate that high-glycemic foods amplify glucose and insulin blood oscillations, producing unstable neuroendocrine signalling.

References

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P73**Do evidence-based practice guidelines exist to support physiotherapists in the approach of patients with episodic headache?**

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Background

The International Classification of Headache Disorders provides an extensive framework to classify headaches as primary or secondary. Physiotherapy is indicated if neuro-musculoskeletal dysfunctions are assumed to be related to the pathophysiological process. Mostly patients suffering from episodic migraine, cervicogenic and tension-type headache consult physiotherapists. Various interventions such as manual therapy, relaxation and exercise therapy are applied in such patients. Yet, clinical outcomes following physiotherapy tend to vary (Fig. 1).

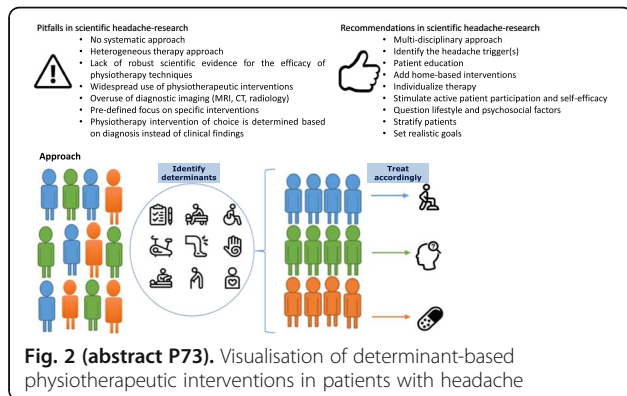
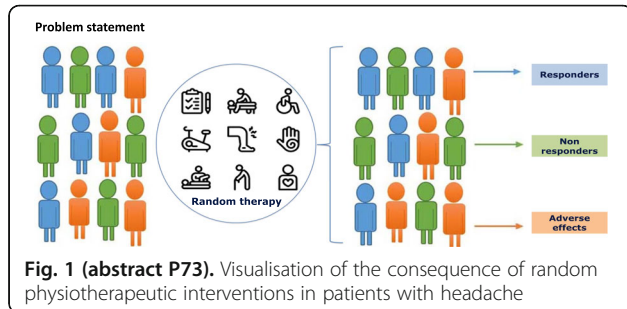
Methods

National and international physiotherapy guidelines concerning the treatment of headache were searched in the databases Pubmed, Web of Science, Pedro and the Cochrane library from January to May 2017. The following Topics or Medical subject heading terms were combined: 'Headache', 'Adult', 'Physiotherapy or Physical Therapy',

'(EBM/EBP) Guidelines' and 'Recommendations'. Guidelines as well as meta-analyses and (systematic) reviews in English and Dutch were included.

Results

Guidelines focus primarily on the pharmacological management of headache. From only two evidence-based physiotherapy guidelines it was concluded that effectiveness of interventions will depend on clinical reasoning since not all interventions are equally effective for all headache types (Fig. 2).



Several surgical procedures have been proposed when chronic cluster headache (CCH) becomes refractory (r). We usually perform in order of safety: ipsilateral sphenopalatine ganglion radiofrequencies (SPG-Rf), bilateral occipital nerve stimulation (NOM-S) and deep brain stimulation (DBS).

Patients.

We included patients with rCCH according to ICHD3 / EHF criteria between November 2003 - June2018 (mean follow-up: 87.4 months). End-point of efficacy: reduction superior to 50% of headache attacks / day.

Results.

We performed 74 SPG-Rf procedures in 44 patients (man: 70.4%, mean age: 41.2y). Average of headache attack / day: 4.4, and mean triptans / day consumption: 3.4. Efficacy of SPG-Rf: 33.3%. SPG-Rf reduced NRS score (10/10 points-to-7/10 points) and triptans consumption (20.5%). Safety: vaso-vagal syncope during the procedure (1) and palatal hypoesthesia as a sequel (1).

We implanted bilateral NOM-S devices in 22 of the 29 SPG-Rf-refractory patients. Average of headache attack / day: 5.7, main sc sumatriptan / day consumption: 4.4. Efficacy of NOM-S: 50%. NOM-S reduced NRS score (10/10 points-to-6/10 points) and triptans consumption (50%). Three patients (13.6%) have been able to shut down the system. Complications: system infection-4, broken electrode-1, disconnected electrode-1.

Finally, 7 patients (man: 87.7%, mean age: 44.6y) were subjected to DBS (posterior hypothalamus), five of them due inefficacy of NOM-S and two more directly after SPG-Rf because NOM-S did not exist then. Average of headache attack / day: 6.5, mean sc sumatriptan / day consumption: 5.7. Efficacy: 85.7%. DBS reduced NRS score (10/10 points-to-4.5/10 points) and triptans consumption (74.5%). Only one patient (14.3%) has been able to shut down the system. Complications: broken electrode-1, relocation of electrode-1.

Conclusions.

The 86% of our refractory chronic cluster headache patients improved their quality of life, substantially and in a sustained way, after applying this surgical algorithm sequentially. We did not register serious adverse effects or relevant surgical complications.

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Spectral domain optical coherence tomography findings in RVCL-S, a monogenic vascular migraine model

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Background

Retinal Vasculopathy with Cerebral Leukoencephalopathy and Systemic manifestations (RVCL-S) is a monogenic small vessel disease caused by mutations in *TREX1*. [1] Several organs, including the brain and retina, are affected, most likely due to endothelial dysfunction. [2] One of the striking associated neurological symptoms is migraine. Migraine has a complex genetic background, but by using monogenic, homogenous, pathophysiological models we aim to increase our knowledge of migraine pathophysiology. One of such models for studying migraine is RVCL-S. Because the retina is a peripheral extension of the brain and shares a similar embryological origin, analyzing retinal anatomy is increasingly seen as a useful biomarker for multiple neurological disorders. [3-6]

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Efficacy and safety of a sequential surgical algorithm in 44 patients with refractory chronic cluster headache

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