

## Annual Report – 2022

### Secondary Headache Special Interest Group

#### Committee members:

- Anish Bahra
- Thien Do
- Andreas Gantenbein
- Espen Kristoffersen
- Jakob Møller Hansen
- Marcio Nattan
- Maria Pilar Navarro Perez
- Mark Obermann
- Heiko Pohl
- Marina Romozzi
- Christoph Schankin
- Alexandra Sinclair
- David García-Azorín (Chair)

#### Summary

The aims of the Secondary Headache Special Interest Group are to:

- promote research into secondary headache;
- improve knowledge about secondary headaches among (general) neurologists, residents and primary care physicians (i.e. when, what and how to further investigate);
- to study the use of ICHD-3 for secondary headache and find ways to improve its use.

#### Communication

The SIG members communicated through email and zoom meeting. Some members met during the European Academy of Neurology meeting, although there was no formal planned meeting.

The next meetings will be proposed depending on the attendance of the SIG members to the MTIS 2022 and/or EHC 2022, or will be done virtually.

#### Publications

Three publications were proposed and are in process: 1) A publication about tension-type headache mimics; 2) A manuscript about how to study secondary headache disorders; 3) A proposal about symptomatic episodes indistinguishable from aura.

The most recent contributions from the SIG include:

García-Azorín D, Do TP, Gantenbein AR, Hansen JM, Souza MNP, Obermann M, Pohl H, Schankin CJ, Schytz HW, Sinclair A, Schoonman GG, Kristoffersen ES. Delayed headache after COVID-19 vaccination: a red flag for vaccine induced cerebral venous thrombosis. *J Headache Pain.* 2021 Sep 17;22(1):108. doi: 10.1186/s10194-021-01324-5.

Pohl H, Do TP, García-Azorín D, Hansen JM, Kristoffersen ES, Nelson SE, Obermann M, Sandor PS, Schankin CJ, Schytz HW, Sinclair A, Schoonman GG, Gantenbein AR. Green Flags and headache: A concept study using the Delphi method. *Headache*. 2021 Feb;61(2):300-309.

### **Research**

To validate the prior SH SIG proposals on red flags and green flags, an observational study was proposed to validate the diagnostic accuracy of the SNNOOP10 list (Do TP, *Neurology* 2019) and the Green Flags (Pohl et al. *Headache* 2021). The SIG members have discussed the design and implementation and the project is pending approval from the participating sites.

### **Secondary headache grant**

Awardee: Wei Dai (China).

Title project:

A longitudinal follow-up study of the patients with medication-overuse headache that completed baseline resting-state functional MRI.

Amount: 2500€

Abstract:

Medication-overuse headache (MOH) is a secondary chronic disorder attributed to overuse of acute or symptomatic headache medications. The underlying mechanism of MOH remains unclear. There is ample evidence that MOH showed functional and anatomical abnormalities of specific brain regions. And some of the neuroimaging features could predict the outcomes of MOH. In our previous resting-state functional MRI study, we found that MOH patients showed enhanced habenula functional connectivity with the salience network compared with episodic migraine and healthy controls, and the connectivity strength was positively related to the medication overuse duration. Follow this finding, we prospectively recruited more patients, resulting in 42 MOH, 40 migraine and 40 matched healthy individuals. We have performed functional MRI and collected headache information of these patients as baseline. We hypothesize that the baseline neuroimage features are related to the short- and long-term prognosis in patients with MOH. To test our hypothesis, we plan to longitudinally follow-up the participants' headache status at 3 months, 12 months, and 24 months. Then we will explore the relations between clinical outcomes and baseline neuroimaging features of MOH patients and seek to identify the brain regions that are pathogenic to MOH. By this study, we may provide potential target for neuromodulation, pharmacological treatment, or deep brain stimulation for MOH.