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GLOBAL MIGRAINE &
PAIN SOCIETY

AUTUMN SYMPOSIUM

Headache Scales in Clinical Practice-1

21-22 October 2023

Acibadem University , Istanbul-Turkey

www.globalmigraine-pain.com

ABSTRACT BOOK



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Dear Colleague,

If you are a neurologist, family physician, algology specialist, or a specialization student and you encounter patients with headaches, and if you have an interest in conducting scientific research on headaches, this meeting is perfect for you.

In this meeting, we aim to provide you with detailed information on clinical scales that you can use to easily screen and diagnose headaches, detect comorbidities, understand the burden of the disease on a person's life during and outside of attacks, and objectively evaluate the effectiveness of treatment.

As the Global Migraine and Pain Society, we take a multidisciplinary approach to pain. We strive to combine and convey current and universal knowledge with the experiences of professors and researchers working on headaches. We aim to elevate the momentum we have gained in the last three years through quality international congresses to the next level with two important symposiums this year.

At the Autumn Symposium, you will hear from colleagues who have worked on translating clinical scales into Turkish, conducted validity and reliability studies, and how these scales designed to objectively assess subjective complaints like headaches can be useful in your daily practice or in designing a scientific study. You will also learn how to design a scientific study and understand the foundational statistical information from our experienced professors in the second part of the meeting.

We are planning to enrich our meeting with interesting satellite symposiums and activities. By holding the meeting in a centrally located hotel on the European side of Istanbul over the weekend, we have made it accessible to colleagues without disrupting their routines and without industry support.

We are among the countries in the world with the highest number of headache patients per physician. Thanks to this meeting, we believe that you will be better equipped for both your clinical practice and scientific research.

Looking forward to seeing you in Istanbul in the autumn, as we prepare for the centenary of our Republic.

Sincerely,

Prof. Dr. Pinar Yalınay Dikmen
Symposium Scientific Secretary

Prof. Dr. Aynur Özge
President of the Global Migraine and Pain Society

SCIENTIFIC COMMITTEE

Prof. Dr. Aynur Özge

Dr. Okan BÖLÜKBAŞI

Dr. Hayrunnisa BOLAY

Dr. Betül BAYKAN

Dr. Rami BURSTEIN

Dr. Pınar YALINAY DİKMEN

Dr. Füsun MAYDA DOMAÇ

Dr. Richard LIPTON

Dr. Bahar TAŞDELEN

Dr. Derya ULUDÜZ

Dr. Didem DERİCİ YILDIRIM



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SCIENTIFIC PROGRAM

21 October, 2023, Saturday

- 9.00-9.15 **Opening Remarks**
9.15-9.30 **History of headache**
Okan Bölükbaşı (Online)
9.30-11.15 **UPDATE PANEL: Headache Scales in Clinical Practice**
Moderators: Hayrunnisa Bolay,
Betül Baykan
9.30-10.15 **PROMs for Sleep Disorders and Headache**
Jan Hoffman
10.15-11.00 **Measurement of Allodynia in Migraine**
Rami Burstein
11.00-11.15 **Discussion**
11.15 - 11.30 **Café Break**
11.30-13.00 **UPDATE OUR PRACTICE-1**
Moderators: Pınar Yalınay Dikmen,
Aynur Özge
11.30-12.00 **Diagnostic screeners in headache disorders**
Esme Ekizoğlu
12.00-12.30 **Clinical Scales related to disability, impact and burden in Headache Disorders**
Rahşan Karacı
12.30-13.00 **Clinical Scales related to treatment monitoring and optimization in headache disorders**
Arife Çimen Atalar
13.00-13.15 **Discussion**
13.15-14.15 **Lunch**
14.15-15.00 **Galcanezumab in the preventive treatment of migraine**
Mustafa Ertaş
Pınar Yalınay Dikmen

Lilly

- 15.00-16.45 **UPDATE OUR PRACTICE- 2**
Moderators: Füsün Mayda Domaç,
Elif Ilgaz Aydınlar
15.00-15.30 **Clinical Scales related to quality of life in headache disorders**
Emel Ur
15.30-16.00 **Clinical Scales related to headache and migraine comorbidities**
Doğa Vuralı
16.00-16.30 **Clinical Scales related to cognitive processes in headache and migraine**
Burcu Polat
16.30-16.45 **Discussion**

16.45 - 17.00 Café Break

- 16.45-17.30 **Oral Presentation**
Moderators: Füsün Mayda Domaç

22 October 2023, Sunday

- 09.30-10.30 **Moderators:** Betül Baykan,
Pınar Yalınay Dikmen
09.00-09.30 **How we should design a clinical headache study?**
Betül Baykan
09.30-10.30 **BASIC STATISTICAL METHODS**
Bahar Taşdelen
10.30 - 11.00 **Café Break**
11.00-12.30 **Moderators:** Betül Baykan,
Pınar Yalınay Dikmen
11.00-12.30 **BASIC STATISTICAL METHODS**
Bahar Taşdelen
12.30-13.00 **Closing Remarks**



OP-1 Exploring the Link Between Spontaneous Toothache and Central Sensitization in Relation to Headache Types

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Background: The reason for different reactions of the pulp to infection and inflammation, from spontaneous pain to painless devitalization, is unknown.

Aim: To investigate the association between spontaneous toothache (STA) and central sensitization (CS) as well as different types of headaches (HA).

Methods: A total of 59 patients out of 507 patients were enrolled in the study, including 23 patients with HA and 36 patients without HA. All participants experienced pain in a single tooth that required root canal treatment. Detailed demographic information, such as age, gender, and body mass index (BMI), was collected. Additionally, jaw with toothache, tooth type, and vitality associated with the painful tooth were recorded. Other variables recorded during clinical examinations included preoperative pain, mechanical allodynia (MA), STA, CS (the presence of MA in symmetrical healthy tooth), cutaneous allodynia (CA) (by using the Allodynia Symptom Checklist). Neurologists evaluated the collected data to determine the presence of different types of headaches, including primary headaches such as migraines and tension-type headaches, as well as secondary headaches.

Results: The results showed no significant differences between STA with CS and the different types of HA.

Conclusion: The findings of this study indicate that there may not be a significant association between STA and CS or HA types. However, due to strong exclusion criterias, it is important to note that this study had a relatively small sample size, which may have influenced the statistical power and limited the ability to detect subtle associations.

Key words: spontaneous toothache, central sensitization, types of headaches, root canal treatment

OP-2 Evaluation of Headache Severity in Multiple Sclerosis Patients

Başak ÖZKAN, İbrahim ACIR, Hacı Ali ERDOĞAN, Elif DEMİR EYÜBOĞLU, Vildan YAYLA

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Background: Multiple sclerosis (MS) is a chronic autoimmune neurological disorder characterized by various clinical presentations, including headache.

Aim: This study aimed to investigate the changes in headache severity in MS patients before and after diagnosis, considering different MS types, and explore potential factors contributing to these changes. Understanding the dynamics of headache severity in different MS subtypes is crucial for optimizing patient care and management strategies.

Methods: This study examined 60 MS patients, comprising 36 females and 24 males, all of whom had no prior history of primary headaches. The distribution of MS types was as follows: 5 PPMS, 5 CIS/RIS, 44 RRMS and 6 SPMS patients. This research utilizes an analysis of Visual Analogue Scale (VAS) headache ratings. Patients were formally interviewed, providing their own VAS-based assessments of headache severity. This assessment covers two timeframes: before the MS diagnosis and at least six months following diagnosis.

Results: The mean age of 60 patients was 38.83 ± 10.68 , and the mean EDSS score was 1.91 ± 1.64 . Our findings reveal a significant increase in VAS pain scores after MS diagnosis ($p < 0.001$). There was a significant difference in the pre-diagnosis VAS averages ($p=0.038$); the PPMS group exhibited the lowest pre-diagnosis VAS scores ($2,6 \pm 3,71$ and $3,2 \pm 3,63$ $p < 0.001$), while the CIS/RIS group had the highest ($7,8 \pm 1,4$ and $6,0 \pm 1,73$ $p < 0.001$).

Conclusion: Our findings indicate a substantial rise in VAS scores following the MS diagnosis among patients. Notably, the CIS/RIS group exhibited the most pronounced increase, underscoring that headache severity escalated in MS-diagnosed individuals who had not yet initiated treatment. Headache severity post-MS diagnosis implies that MS treatments might induce headaches. To sum it up, the heightened headache severity in MS patients after diagnosis could be attributed to either the MS disease itself or the treatments used for MS.

Key words: multiple sclerosis, MS types, visual analogue scale (VAS)

OP-3 Comparison of Clinical Characteristics of Headaches in Patients with Epilepsy and Patients with Epilepsy and PNES Coexistence

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University of Health Sciences, Antalya Training and Research Hospital, Department of Neurology, Antalya, Türkiye

Background: Clinical observations have shown that patients with psychogenic nonepileptic seizures (PNES) have more severe migraine than patients with epilepsy.

Aim: We aimed to investigate the differences in headache characteristics and attacks by examining the headaches of patients with epilepsy and patients with epilepsy and PNES coexistence.

Methods: Patients with epilepsy and epilepsy and coexisting PNES who were followed up in the Epilepsy outpatient clinic of University of Health Sciences Antalya Training and Research Hospital were included in the study. Patients were asked questions on questionnaires including questions about the frequency of headache and its character. Headache-Attributed Lost Time-90 (HLT-90) days index was applied to the patients.

Results: Twenty two patients with epilepsy and coexisting PNES and 45 patients with epilepsy were included in the study. The most common headache in all patients was tension-type headache (47.7%), which was more common in epilepsy and coexisting PNES patients. HLT-90 score was higher in the epilepsy and coexisting PNES group.

Conclusion: We suggested that the comorbid headache may be different between epilepsy patients and patients who have epileptic seizures and PNES

Key words: epilepsy, psychogenic nonepileptic seizures, headache

OP-4 Cervical and Intracranial Artery Dissections Presenting with Only Headaches

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Background: Cervical and/or intracranial artery dissection (CIAD) patients rarely present with headaches alone.

Aim: We aimed to describe headache characteristics and red flags in patients with CIAD who presented with only headaches without major neurological deficits or significant cranial MRI findings.

Methods: We conducted retrospective chart reviews to obtain detailed demographic and clinical/imaging data on dissection, previous migraine history, and characteristics of dissection-related headaches between January 2010 and February 2023.

Results: A total of 24 patients who presented with complaints of headache and/or cervical pain and were diagnosed with dissection were included in the study. The patients presented with headache alone (n=7), cervical pain alone (n=9), and a combined headache and cervical pain (n=8). Eight patients had a migraine history. The locations of dissection were as follows: Carotid Artery (n=4), Vertebral Artery (n=19) and combined (n=1). Dissection-related headache was ipsilateral to the dissected segment in 14 patients, bilateral in 6 patients, and contralateral in 4 patients. The most pronounced red flags of dissection-related headache were persistence of headache (n=19), abrupt onset (n=15), and none or minimal response to analgesics (n=14). Following the dissection, migraine characteristics in 3 patients showed no change, whereas five patients reported a change in headache features. Patients with CIAD reported the mean Numeric Analogue Scale as (8±1.67).

Conclusion: Our findings indicate that severe pain intensity, persistence of headache, abrupt onset, and minimal analgesic response may warn clinicians in case of a CIAD.

Key words: cervical artery dissection, intracranial artery dissection, headache, migraine, red flags

OP-5 The Comparative Study of Greater Occipital Nerve Block Alone Versus a Combination of Greater Occipital Nerve Block and Trigger Point Injections in Patients with Chronic Migraine

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Background: Both the greater occipital nerve block (GONB) and trigger point injection (TPI) are utilized in the treatment of chronic migraine (CM).

Aim: This study aims to assess and compare the therapeutic benefits of GONB alone and a combination of GONB and TPI in patients with CM who also have trigger points.

Methods: Patients with CM and trigger points were randomly allocated into two groups. Group 1 received GONB, while Group 2 received a combination of GONB and TPI. GONB was administered bilaterally with 2 cc of 2% lidocaine per site. TPIs were performed on the neck and shoulders using 0.5 cc of 2% lidocaine for each trigger point. The outcomes were evaluated using the visual analog scale (VAS) and by measuring the reduction in the number of headache days (HD) per month. Subsequently, the results were compared between the two groups.

Results: Both groups comprised 23 patients. The median age was 41 years (IQR: 13.5) for Group 1 and 48 years (IQR: 13) for Group 2. Median VAS scores before and after the injection were 9.0 (IQR: 1.0) and 3.0 (IQR: 2.0) for Group 1, and 9.0 (IQR: 2.0) and 3.0 (IQR: 1.0) for Group 2, respectively. In Group 1, the median number of HD was 20.0 (IQR: 10.0) before and 3.0 (IQR: 2.0) after the injection. In Group 2, it was 18.0 (IQR: 12.5) before and 2.0 (IQR: 2.0) after the injection. There were no statistically significant differences between the groups in terms of reduction in VAS scores and HD ($p=0.101$ and $p=0.543$, respectively).

Conclusion: Both GONB and the combination of GONB and TPI are effective treatments for CM patients with trigger points. No statistical difference in effectiveness was observed between the two treatment modalities in terms of VAS scores and HD. Further studies are warranted to confirm these findings in larger patient populations and over longitudinal observations.

Key words: Chronic migraine, greater occipital nerve block, trigger point injection

OP-6 Assessment of Metacognitive Functions in Episodic Migraine Patients

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Background: Metacognition is typically defined as a dynamic neurocognitive process characterized by a person's knowledge and ability to understand, control, and manipulate their own cognitive processes. The literature reports that individuals with migraine exhibit lower cognitive performance, particularly in terms of memory impairment, decreased attention, and executive function deficits, more frequently than control subjects.

Aim: The aim of the study was to investigate the presence of metacognitive dysfunction in adult episodic migraine patients.

Methods: A cross-sectional case-control study was conducted, involving a total of 108 participants, consisting of 53 episodic migraine without aura (MWOA) patients and 55 controls. The study utilized a socio-demographic and clinical data form prepared by the researchers, the Metacognition Questionnaire-30(MCQ-30), Cognitive Attentional Syndrome-1 Scale(CAS-1), Beck Depression Inventory(BDI), Beck Anxiety Inventory (BAI), and Symptom Checklist-90-Revised (SCL 90-R) scales. Possible psychiatric diagnoses were excluded by using SCL-90, BDI, and BAI. Patients having scores above cut-off points on these scales were excluded from the study. For the evaluation of metacognition in patient and control groups, CAS-1 and MCQ-30 were implemented.

Results: The total score and subscale scores of the MCQ-30 were found to be statistically significantly higher in MWOA patients compared to the control group ($p < 0.001$). The patient group had statistically significantly higher scores in the CAS-1 total score and subscales compared to the control group ($p < 0.05$). There is a negative and statistically significant correlation between the duration of migraine and the CAS-1 Total score ($r = -0.474$, $p < 0.01$). There was no significant relationship between the frequency and duration of migraine attacks and the scales.

Conclusion: Patients with MWOA were found to have significantly lower metacognitive abilities, believed more in the usefulness of worrying about planning or problem-solving, had lower confidence in their own memory and attention abilities, believed more in the need to control negative thoughts, engaged more with their thoughts, focused more on potential dangers, found

their thoughts more dangerous, and believed more in the uncontrollability and the need to control their worries. Metacognition must also be taken into consideration in the management of migraine.

Key words: migraine, metacognition, headache

OP-7 Persistent New-Onset Headache in an Elderly Patient: A Case of Glossopharyngeal Neuralgia

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University of Health Sciences, Prof. Dr. İlhan Varank Sancaktepe Training and Research Hospital, İstanbul, Türkiye

Background: Glossopharyngeal neuralgia is a rare painful condition characterized by short-term, sharp, stabbing pain in the areas innervated by the glossopharyngeal nerve. This case presentation will discuss glossopharyngeal neuralgia, which is quite rare.

Aim: The presence of neuralgiform pain in the same region as the chronic pain and the extreme weight loss secondary to possible food intake deficiency highlight the importance of a faster diagnostic approach in such cases.

Case: The patient was complaining about the headache and weight loss (-%20 at six months) for approximately a year. The chronic headache is localized on the 'left' side of the head and the 'left' ear, but it acquires neuralgiform characteristics during eating and swallowing. Magnetic resonance imaging of the neck revealed a 7 mm lesion extending to the 'right' lateral recess at the level of the nazopharynx. Endoscopic biopsy examination did not reveal malignancy but was reported as consistent with ulceration. Thoracic and abdominal computed tomography for malignancy screening and lumbar puncture results were normal. The patient did not benefit from the topiramate, endol, and melatonin treatment. Tramadol provided some relief for the symptoms; but then; the pain response decreased over time. The patient has been pain-free for six months under the combination of carbamazepine and gabapentin. Due to the presence of an ulcerative lesion on the painless side of the patient, it was decided to monitor the possible development of a lesion on the painful side.

Conclusion: The other medications are; -duloxetine, valpoic asid, topiramate, lamotrigine- can be efficient in glossopharyngeal neuralgia too.

Key words: neuralgia, headache, weight loss, nasopharynx lesion

OP-8 Propranolol-Induced Somnambulism: A Novel Side Effect In Migraine Prevention

Buse Çağla ARI

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Background: Beta-blockers constitute important pharmacotherapeutic modality in treatment of migraine. They exhibit favorable tolerability profiles, optimal patient adherence rates. However, they have been associated with various sleep disorders. Underlying mechanism of somnambulism remains mysterious, although evidence suggests reduced melatonin synthesis via central beta-1-adrenergic receptor modulation. An alternative hypothesis suggests they may interact with 5-hydroxytryptamine receptors, thereby trigger abnormal sleep behaviors.

Aim:: To report a case of beta-blocker-induced sleep disturbance was aimed.

Case: A 38-year-old female presented with a throbbing headache around right eye, radiating to right half of head, accompanied by photophobia and phonophobia. In some of the attacks, she complained auras with negative visual phenomenons. She had at least three attacks per week. The pain could persist despite sometimes using NSAIDs twice. After investigations, she was diagnosed as "*migraine with typical aura*". Propranolol 40mg orally twice a day was initiated for the treatment of chronic migraine because of frequency of attacks and the high amount of NSAIDs administered. Although there was a significant remission in headaches within ten days, she stated that she had nightmares; talking and walking during sleep. She did not wake up during the attacks, not respond to questions or remember episodes in morning. After discontinuation of the treatment, somnanbulism symptoms regressed.

Conclusion: Sleepwalking is an infrequent adverse event associated with propranolol and may occur in patients with or without a previous history of sleep disorders. Given the widespread use in clinical settings, it is imperative that neurologists maintain awareness of this potential adverse outcome.

Keywords: propranolol; beta-blockers; chronic migraine; treatment; sleep disorders

OP-9 Botulinum Toxin Type A Application In The Treatment Of Nummular Headache: 3 Case Presentation

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Background: Nummular headache is a rare primary headache characterized by a pattern of chronic or episodic attacks, limited to a round or elliptical area typically 1-6 cm in diameter resembling a coin. There is no definite treatment guideline.

Aim: To share the results of the application of botulinum toxin type A (BoNTA) in three patients with nummular headache who did not respond to first-line treatments was aimed.

Cases: The 51-year-old, 33-year-old, and 39-year-old patients diagnosed with nummular headache, who did not respond to gabapentin, carbamazepine, lidocaine injection and nonsteroidal anti-inflammatory drugs, were each administered a subcutaneous injection of 20 IU of BoNTA in the region where they described the boundaries of their pain. The first patient's pain intensity and frequency decreased. The patient is currently being followed clinically with BoNTA injections every three months. The second patient had a pain-free period for three weeks, but later reported that the pain returned. The second dose was given two months after the first dose, but there was no change in pain. In the third patient, there was no change in the intensity or frequency of pain after the first application. Two months later, BoNTA injection is repeated and the patient's pain intensity and frequency decreased. The patient is currently being followed clinically with BoNTA injections every three months.

Conclusion: Botulinum toxin type A should be considered as an alternative treatment with a low side effect profile and good tolerability in the management of refractory nummular headache in patients who have not responded to first-line treatments.

Keywords: headache, nummular headache, botulinum toxin