

## ABSTRACT

Headache is a common complaint in children as well as adults. Primary headaches constitute an important part of all headaches. All headache diagnostic criteria have been revised with “The International Classification of Headache Disorders 3rd edition”, the latest classification of the international headache community. Thus, it is aimed to approach the diagnosis correctly, to request and interpret the appropriate tests, and to provide the right treatment. Using these current data, we aimed to share our single center experience in the diagnosis and treatment of patients who applied to our hospital with headache complaints.<sup>1,2</sup>

## MATERIALS & METHODS

We retrospectively analyzed the epidemiological characteristics, laboratory and imaging findings, and treatments of patients who came to our hospital's pediatric neurology outpatient clinic with headache complaints between 2018 and 2021.

## RESULTS

We included 1673 patients in our study. These patients, 775 (46.3%) were boys and 898 (53.8%) were girls, with a mean age of 12.28±3.70 (2-19). When we divided the diagnoses of the patients as primary and secondary headaches, 1433 patients (85.6%) were diagnosed with primary headache and 240 patients (14.3%) were diagnosed with secondary headache. The patients with primary headache, 329 (19.1%) had migraine without aura, 29 (1.7%) had migraine with aura, and 1075 (64.2%) had tension-type headache.

The patients diagnosed with secondary headache, 203 (12.1%) were diagnosed with sinusitis, 31 (1.4%) with pseudotumor cerebri, and 6 (0.3%) with intracranial mass. Migraine and tension-type headache were more common in girls. In our study, the mean duration of attacks in our patients was 2.86±6.90 hours (15 min-72 hours), and the mean duration of attacks in our patients diagnosed with migraine was 6.55±12.10 hours (30 min-72 hours).

Vitamin B12 deficiency was detected in 866 (51.7%) of our patients, vitamin D deficiency in 1077 (64.3%) and iron deficiency anemia in 178 (10.6%) patients and their treatments were performed. We initially started symptomatic treatment (ibuprofen, paracetamol) in 1121 patients with primary headache.

We started propranolol treatment in 29 patients with migraine who did not respond to symptomatic treatment. We evaluated the prognosis of these patients with Pediatric Migraine Disability Assessment (PedMIDAS) during their follow-up. Nine of our patients were excluded from the study because they did not attend the follow-ups regularly and did not comply with their medication. More than 50% clinical improvement was observed in the 3- and 6-month evaluation of 9 of our other 20 patients. More than 50% improvement was found in the 3-month evaluations of 10 of our patients. Follow-up continues for 6-month evaluation. A patient with a diagnosis of migraine with aura was started on topiramate because he did not respond to propranolol treatment. During the follow-up of the patient, the severity and duration of headache decreased. However, no decrease in frequency was observed.

We started acetazolamide treatment in 31 patients who were followed up with the diagnosis of pseudotumor cerebri. In the 6-month follow-up of 27 patients with pseudotumor cerebri, their symptoms did not recur and their ophthalmological examination showed complete improvement. The treatment of 4 of our patients continues.

## CONCLUSION

Anamnesis is always of great importance in patients presenting with the complaint of chronic headache. However, laboratory and imaging methods are great helpers in making a correct diagnosis, since children cannot express themselves correctly and cannot explain their symptoms correctly. In order to obtain the correct anamnesis in the pediatric patient group, it is often necessary to get help from the children's family. At the same time, it should be noted that the symptoms of pediatric patients may differ from those of adults. In our study, it was observed that the headache duration of children diagnosed with migraine may be shorter than adults. Therefore, headache diaries should be used in the follow-up of patients.

Our priority in the treatment of primary headache in children is symptomatic treatment. After symptomatic treatment, propranolol treatment is used for prophylaxis in children whose school performance is impaired and whose daily activities are affected. In our study, it was seen that propranolol treatment used in migraine prophylaxis may be effective.

## LIMITATIONS:

Since we examined a group of patients who applied to our pediatric neurology outpatient clinic, we could not obtain sufficient data on the causes of secondary headache. Propranolol treatment, which is also used in the treatment of migraine, was found to be effective in children. However, a more comprehensive study with placebo and control group is needed to determine the efficacy of propranolol treatment and to determine its place in migraine prophylaxis.

## REFERENCES

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