

**LETTER TO THE EDITOR****Geographic tongue that responds to the treatment of pregabalin: Can it be a new treatment choice?**

Dear Editor,

Geographical tongue, also known as benign migratory glossitis or erythema migrans, is a benign dermatosis whose specific etiology is not known due to the disappearance of central erythematous and filiform papillaries surrounded by a hyperkeratotic ring forming the geographical shape on the tongue. The disease causes pain and burning sensation in patients particularly when they intake acidic and hot food. Nutritional deficiencies were rarely encountered in the research. In treatment, topical corticosteroids may be recommended for symptomatic relief (Jacob, 2016; Khan, 2018).

It was determined that the 55-year-old female patient, who was diagnosed polymyositis and prescribed systemic corticosteroids and azathioprine, started at the same time, applied to our clinic with the complaints of centralized, peripheral hyperkeratotic white plaques that give a feeling of burning against widespread, erythematous, hot, and acidic food. It did not benefit from the topical treatments that she used from time to time for a long time. In the dermatological examination of the patient, the widespread periphery, starting from the ventral to the dorsal root, surrounded by white hyperkeratotic rings, consisting of plaques characterized by the disappearance of erythematous, filiform papillaries were seen (Figure 1). The nutritional tests of the patient were evaluated as normal. There was emotional stress that due to the role of chronic illness in the patient. Initially  $2 \times 25$  mg pregabalin treatment started. In the first month of the treatment the

lesions recovered 80–90%, and burning sensation diminished too (Figure 2). The treatment of the patient was readjusted to  $1 \times 25$  mg/day. In the second month of the treatment, there was no increase in lesions; it was observed that there was some new healing and total regression of the subjective symptoms (Figure 3).

Pregabalin, is an analogue of gamma amino butyric acid (GABA). It is the calcium canal ligand of pregabalin  $\alpha 2\text{-}\delta$  and it is strongly attached to



**FIGURE 2** The first month of pregabalin treatment



**FIGURE 1** Geographical tongue before treatment



**FIGURE 3** The second month of pregabalin treatment

voltage-sensitive canals of  $\alpha 2\text{-}\delta$  subunit. Thus, it leads to the release of calcium in nerve endings to inhibit the release of neurotransmitters such as glutamate, noradrenalin, and substance P. Due to its pharmacological properties and chemical structure, pregabalin is used in the treatment of epilepsy, peripheral neuropathic pain, chronic musculoskeletal pain, post-operative pain after lumbar surgery, fibromyalgia, and anxiety (Belli, 2013; Manjushree, 2015). In the literature, there are no cases/studies related to the successful treatment of geographic tongue lesions with pregabalin. Although the cause of geographic tongue is not known, there are some studies in literature showing the relationship with anxiety. Based on the literature, pregabalin was started to benefit from the anxiolytic effect (Generoso, 2017; Greenblatt, 2018).


We believe that geographic tongue lesions that do not have an effective treatment option in the future may be a new and successful treatment option supported by pregabalin treated case series and prospective studies.

#### CONFLICT OF INTEREST

No conflict of interest.

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#### REFERENCES

- Belli, E. (2013). Yeni bir ağrı kesici: Pregabalin ve ilk zehirlenmeler. *AĞRI*, 25, 187–189.
- Generoso, M. B. (2017). Pregabalin for generalized anxiety disorder: An updated systematic review and meta-analysis. *International Clinical Psychopharmacology*, 321, 49–55.
- Greenblatt, H. K. (2018). Gabapentin and pregabalin for the treatment of anxiety disorders. *Clinical Pharmacology in Drug Development*, 7, 228–232.
- Jacob, C. N. (2016). Geographic tongue. *Cleveland Clinic Journal of Medicine*, 83, 565–566.
- Khan, S. (2018). Benign migratory glossitis. *Journal of the College of Physicians and Surgeons–Pakistan*, 28, 175–176.
- Manjushree, N. (2015). A review of the drug pregabalin. *International Journal of Basic and Clinical Pharmacology*, 4, 601–605.