

Chair and Department of Neurology, Chair and Department of Periodontology  
Medical University of Lublin

MARIA PILARCZYK, ANDRZEJ FIDOR, MARCIN NASTAJ,  
ZBIGNIEW STELMASIAK, MONIKA NASTAJ

*Postherpetic neuralgia of the mandibular division  
of trigeminal nerve*

Herpes Zoster is an infectious disease caused by the Varicella-Zoster Virus (VZV). After an acute phase of varicella which is particularly a childhood disease, the virus travels along sensory nerves and becomes latent in spinal ganglion, to reappear in the form of herpes zoster. Immunosuppressed patients or patients with neoplastic disease are specially prone to herpes zoster infection. Incidence of herpes zoster is 4/1,000, rapidly increasing as patients get older. It is estimated that approximately 10–20% of population becomes ill. In more than 50% of patients skin lesions affect thoracic dermatomes, in 10–25% ophthalmic division on trigeminal nerve is affected. A typical feature of zoster infection is an acute pain of various intensity, that may precede skin lesions. Pain is persistent and lasts longer particularly in elderly patients (3).

In 2005 we diagnosed 20 patients with postherpetic neuralgia of various localization. In 3 cases division III of trigeminal nerve was affected. According to medical history of these 3 patients, symptoms were directly related to previous zoster infection of unusual localization. All 3 patients were referred to dentists. The first patient, with zoster of mandibular division 4 months earlier, (59-year-old male) was planned to remove previously implanted teeth, because of persistent pain in the right mandibular region. Two more patients (58- and 60-year-old females) with persistent pain of great intensity localized in the right mandibular region, had related teeth removed despite the fact they lacked pathological findings. Both of them had had zoster infection in the painful region during the last 8 months.

After resolution of skin lesions, pain may become persistent or reappear after a period of time. Pain is typically unilateral and affects up to several dermatomes innervated by thoracic or trigeminal nerves. Viral infection may cause injury of both sensory and motor fibers with scarification of peripheral nerve, radix, spinal ganglion and posterior spinal horn (1). Neuralgic pain affects 9–14% patients after zoster infection. Prevalence of neuralgia increases with age. In population older than 50 years prevalence is 50%. After 65 years of age prevalence is 75%. Severity and duration of pain are also age-dependent. Pain persists longer than a year in 22% of 55-year-old patients, and in 48% of patients over 70 (2).

We present 3 patients with atypical zoster infection affecting the third branch of trigeminal nerve. Unusual localization of neuralgic pain was the reason for all patients to undergo medical procedures, unrelated to pain etiology. Accurate diagnosis should prevent this to happen and facilitate appropriate treatment.

## CONCLUSIONS

Neuropathic pain is certainly difficult to manage because of complex mechanisms of its origin. However, extensive knowledge of pathologic processes enables accurate therapeutic strategies aiming at resolution of peripheral nerves function.

## REFERENCES

1. Chronic Pain (ed. T. S. Jensen Wilson, A. S. C. Rice ), Arnold, London 2003.
2. Dobrogowski J., Wordliczek J.: Medycyna bólu, 255, 2004.
3. Watson C. P. N.: Herpes Zoster and Postherpetic Neuralgia. Pain Research and Clinical Management, Elsevier, vol. 8, London 1993.

## SUMMARY

We present a group of patients with postherpetic neuralgia, with rare localisation in the region supplied by the third branch of trigeminal nerve. The issue should be of interest both for neurologists and dentists.

### Neuralgia popółpaścowa z zajęciem III gałęzi nerwu trójdzielnego

Przedstawiamy obserwację pacjentów z występującym bólem neuropatycznym, związany z przebyciem infekcji półpaścowej. Zwracamy uwagę na możliwość lokalizacji schorzenia w obrębie III gałęzi nerwu trójdzielnego. Problem ten zasługuje na szczególne zainteresowanie zarówno neurologów, jak i stomatologów.