

THE USE OF PROTECTOR MADE OF REPEREN IN MICROVASCULAR DECOMPRESSION OF TRIGEMINAL NERVE

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A.Y. Sheludyakov, PhD, Senior Research Worker¹;
S.E. Tikhomirov, PhD, Neurosurgeon²;
Y.A. Stupak, Head of the Neurosurgery Department²

¹Nizhny Novgorod Research Institute of Traumatology and Orthopedics, Ministry of Health of the Russian Federation, Verkhne-Volzhsкая naberezhnaya St., 18, Nizhny Novgorod, Russian Federation, 603155;

²City Clinical Hospital No.13, Patriotov St., 51, Nizhny Novgorod, 603018

For the first time there was used an isolating protector made of Reperen aiming to resolve a neurovascular conflict between superior cerebellar artery and trigeminal nerve root — a leading cause of trigeminal neuralgia.

Key words: trigeminal neuralgia; microvascular decompression; Reperen.

Trigeminal neuralgia is a chronic disease, characterized by the strongest, sudden, usually unilateral pain paroxysms, localized more often in the zones of innervation of the 2nd and 3rd branches, affecting both of them or separately. Multiple investigations and every day practice proved that the main cause of trigeminal neuralgia is neurovascular conflict between superior cerebella artery and the root of trigeminal nerve, resulting in focal demyelination in the zone of the root and artery contact, due to which arterial pulsing, transmitted to the root, induces strong pain attacks in the zones of trigeminal nerve innervation [1, 2]. Incidence rate of neuralgia of trigeminal nerve according to the literature amounts to 4–5 cases per 10,000 population a year [3–5].

Pathogenetically grounded operation — microvascular decompression of the trigeminal root with wrapping the nerve in a synthetic protector — gives good positive results in more than 90% cases. A high efficacy of microvascular decompression in neuralgia of trigeminal nerve determines the increase in the number of the operations performed in a given pathology, which, in its turn, inspires the development of optimal implant to protect the trigeminal root.

To isolate the root of the trigeminal nerve in microvascular decompression we used the material Reperen for the first time.

Patient D., 67 years of age, was admitted to the Neurosurgical Department of City Clinical Hospital No.13, Nizhny Novgorod, complaining of constant intensive darting pains in the right frontal, malar, buccal and parirhinal areas, increasing in mastication and speaking. Pains had been

bothering the patient for more than 2 months. Administration of Finlepsin failed to relieve the condition.

Neurological examination revealed a clear consciousness, good orientation. Hyperesthesia was determined in the zone of innervations of the 1st and 2nd branches of the trigeminal nerve. Triggering zones in the site of the outcome of the 1st and 2nd branches; tendon reflexes from the limbs D=S, and normal motor function were also noted. MRT of the brain revealed cystic atrophic dyscirculatory changes (Fig. 1).

On 26 September 2013 an operation was performed: posterior cranial fossa trepanation on the right (right retrosigmoidal approach), microvascular decompression of the trigeminal nerve. Intraoperative photograph (Fig. 2)

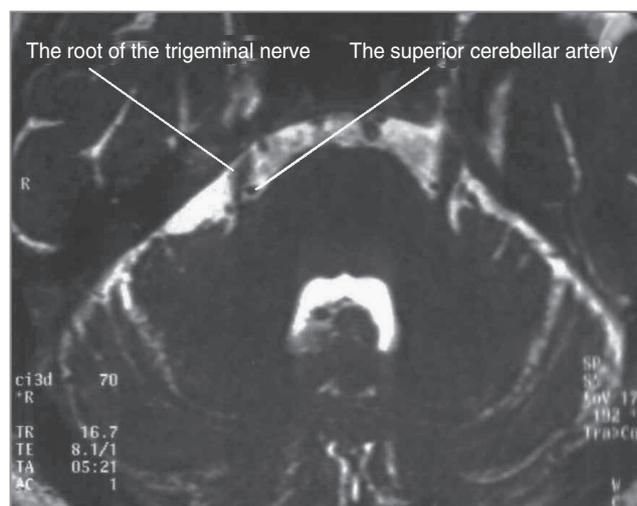


Fig. 1. MRT of the posterior crania fossa structure of patient D.

For contacts: Tikhomirov Sergey Evgenievich, phone +7-951-919-11-13, e-mail: sergey.tikhomirov.1980@gmail.com

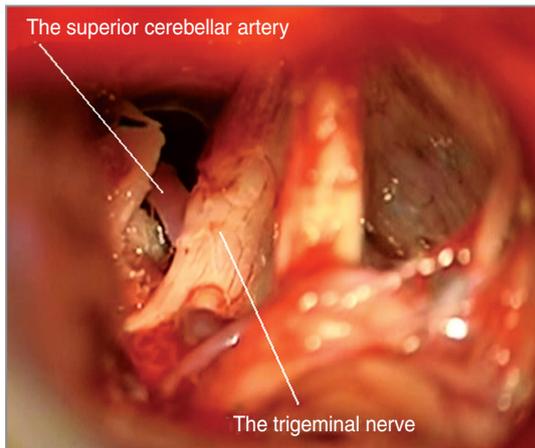


Fig. 2. Interoperative photograph. A close contact of the superior cerebellar artery with the trigeminal nerve is visualized, $\times 12$

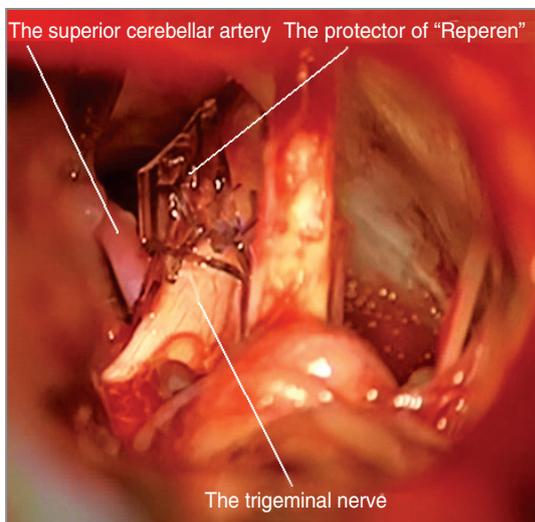


Fig. 3. Intraoperative photograph. The root of the trigeminal nerve is separated from adhesions and wrapped in the isolating protector, made of "Reperen" material; $\times 2$

shows a direct contact of the trigeminal nerve root with the superior cerebellar artery and some flattening of the root in the contact zone.

The nerve was moved aside and separated circularly.

The root of the trigeminal nerve was wrapped in the implant, formed from the artificial dura mater Reperen (Fig. 3).

Immediately after recovering from anesthesia, the patient noted complete pain regression in the face. Postoperative period was uneventful. The patient did not experience the demand in taking analgetics and Finlepsin.

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