Neurosurgical Treatment in Erythromelalgia

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Introduction

Erythromelalgia, formerly known as Mitchell's disease (after Silas Weir Mitchell), acromelalgia, red neuralgia, or erythermalgia is a rare neurovascular peripheral pain disorder in which blood vessels, usually in the lower extremities or hands, are episodically blocked (frequently on and off daily), then become hyperemic and inflamed. There is severe burning pain (in the small fiber sensory nerves) and skin redness. The attacks are periodic and are commonly triggered by heat, pressure, mild activity, exertion, insomnia or stress.

Methods

Unilateral stereotactic cryodestruction of the thalamic ventrolateral nuclei was performed in 2 children (an 9-year-old boy and a 12-year-old girl) with erythromelalgia and uncontrollable pain in the lower extremities were treated by stereotaxic destruction of VPL and CM and (in one case) by partial rhizotomy.We also considered reoperation on the other side, which turned out to be ineffective. Then the patient underwent destruction of the inlet areas of the spinal dorsal roots by breaking the cervical pain-conducting tracts.

Results

Pain in the extremities and the clinical manifestations of erythromelalgia disappeared after surgical treatment (follow-up periods of 5 and 2 years, respectively). The mechanism of the therapeutic effect of these operations is still not clear. Similar cases are not described in the literature.

Conclusions

Pain and other autonomic manifestations of the disease came to an end. The mechanism of the therapeutic effect of these operations is still not clear.

References

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Learning Objectives

To describe the response in patients with erythromelalgia to stereotactic functional cryodestruction.