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SLUDER'S SYNDROME: CLINICAL FEATURES, DIAGNOSIS AND TREATMENT

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Abstract

Sluder's syndrome, also known as sphenopalatine neuralgia, is a rare neurological disorder associated with irritation or inflammation of the sphenopalatine ganglion. The condition is characterized by severe unilateral facial pain accompanied by autonomic symptoms such as nasal congestion, lacrimation, and rhinorrhea. Due to its similarity to other facial pain syndromes, Sluder's syndrome is often misdiagnosed. This article reviews the etiology, pathogenesis, clinical manifestations, diagnostic approaches, and treatment methods of Sluder's syndrome. Early diagnosis and appropriate management are essential for improving patients' quality of life.

Keywords

Sluder's syndrome, sphenopalatine ganglion, facial pain, neuralgia, diagnosis, treatment.

Introduction

Sluder's syndrome was first described by the American otolaryngologist Greenfield Sluder in the early 20th century. The condition is associated with dysfunction of the sphenopalatine (pterygopalatine) ganglion, a parasympathetic ganglion located in the pterygopalatine fossa.

The syndrome is characterized by unilateral facial pain that may radiate to the eye, nose, palate, upper jaw, or temple. Patients often present with autonomic symptoms such as nasal congestion, excessive nasal discharge, tearing, and sometimes photophobia.

Sluder's syndrome is frequently confused with trigeminal neuralgia, cluster headaches, and sinusitis, which complicates its diagnosis.

Etiology

The exact cause of Sluder's syndrome remains unclear. However, several factors may contribute to irritation or dysfunction of the sphenopalatine ganglion:

Chronic inflammatory diseases of the nasal cavity and paranasal sinuses

Sinusitis (especially maxillary or sphenoidal)

Nasal septum deviation

Allergic rhinitis

Trauma to the facial region

Dental infections of the upper jaw

Tumors of the nasal cavity or paranasal sinuses

These conditions can cause irritation of nerve fibers connected with the sphenopalatine ganglion, leading to pain and autonomic symptoms.

Pathogenesis

The pathogenesis of Sluder's syndrome is associated with irritation of the sphenopalatine ganglion and its neural connections with the trigeminal nerve and autonomic nervous system.

The ganglion contains parasympathetic fibers that regulate the secretory activity of the lacrimal and nasal glands. When the ganglion becomes irritated, abnormal nerve impulses are transmitted, resulting in:

intense facial pain

vasodilation

increased secretion of nasal and lacrimal glands

The trigeminal nerve plays a major role in pain transmission, which explains why pain often spreads to the maxillary region, palate, orbit, and temple.

Clinical Manifestations

The main symptom of Sluder's syndrome is **severe unilateral facial pain**. The pain is usually described as burning, stabbing, or throbbing.

Common clinical features include:

pain in the nose, eye, upper jaw, palate, or temple

nasal congestion

rhinorrhea (nasal discharge)

lacrimation (tearing)

photophobia

hypersensitivity in the facial region

sometimes swelling of nasal mucosa

Pain attacks may last from several minutes to several hours and can occur repeatedly.

In some patients, pain may radiate to the neck, ear, or shoulder region.

Diagnosis

Diagnosis of Sluder's syndrome is primarily based on clinical examination and exclusion of other diseases.

The main diagnostic methods include:

patient history and clinical symptoms analysis

neurological examination

ENT examination of the nasal cavity

computed tomography (CT) of paranasal sinuses

magnetic resonance imaging (MRI)

One important diagnostic method is **sphenopalatine ganglion block with local anesthetics**. If the pain disappears after the block, it confirms the involvement of the ganglion.

Differential Diagnosis

Sluder's syndrome should be differentiated from several conditions:

trigeminal neuralgia

cluster headache

migraine

sinusitis

dental pain

temporomandibular joint disorders

Accurate diagnosis is essential because treatment strategies differ significantly.

Treatment

Treatment of Sluder's syndrome aims to eliminate the cause of ganglion irritation and relieve pain.

Conservative treatment

local anesthetic block of the sphenopalatine ganglion

analgesics

anti-inflammatory drugs

nasal decongestants

physiotherapy

Interventional treatment

In severe or chronic cases, additional procedures may be used:

repeated sphenopalatine ganglion block

radiofrequency ablation

ganglionectomy (rarely)

Treatment of underlying disease

If the syndrome is associated with sinusitis or nasal pathology, treatment of the underlying condition is required.

Prognosis

The prognosis of Sluder's syndrome depends on the underlying cause and the timeliness of treatment. In many cases, appropriate therapy significantly reduces pain intensity and frequency of attacks.

However, without treatment the condition may become chronic and severely affect the patient's quality of life.

Conclusion

Sluder's syndrome is a rare but clinically significant cause of facial pain associated with dysfunction of the sphenopalatine ganglion. Due to its similarity to other neurological and ENT disorders, diagnosis can be challenging. A comprehensive clinical examination and appropriate imaging studies are essential for accurate diagnosis. Early treatment, including ganglion block and management of underlying conditions, can significantly improve patient outcomes.

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