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Attachment: Clinical Typing and Staging of Chronic Sinusitis and Nasal Polyps and Evaluation Criteria for Curative Effect of Endoscopic Sinus Surgery (Haikou, 1997)

Otorhinolaryngology Branch of Chinese Medical Association
Editorial Board of Chinese Journal of Otorhinolaryngology

Staging basis for chronic sinusitis

Medical history, endoscopy, and CT scan.

Typing and staging of chronic sinusitis and nasal polyps (based on lateral view, with separate evaluation of the anterior and posterior ethmoid sinuses)

Type 1 simple chronic sinusitis (conservative treatment failed)

Stage 1: solitary sinusitis;
Stage 2: multiple sinusitis;
Stage 3: pansinusitis.

Type 2 chronic sinusitis with nasal polyps (CRSwNP)

Stage 1: solitary sinusitis with solitary nasal polyp;
Stage 2: multiple sinusitis with multiple nasal polyp;
Stage 3: pansinusitis with multiple nasal polyp;

Type 3 multiple sinusitis or pansinusitis with multiple, recurrent nasal polyps and/or ethmoid bone hyperplasia.

Efficacy evaluation criteria (subject to nasal endoscopy)

Resolved: Symptoms disappear completely; the aperture to the mastoid antrum is adequately open; epithelization of the sinus cavity mucosa is present; and no purulent secretion is present;

Improved: Symptoms are obviously improved; endoscopic examination shows that part of the sinus cavity mucosa has edema, tissue thickening, or granulation tissue, with a small amount of purulent secretion;

Not resolved: Symptoms are not improved; endoscopic examination shows cavity adhesion, sinus stenosis or atresia, polyp, and purulent secretion.

Follow-up

The short-term follow-up should be not less than 6 months, and the long-term follow-up should be more than one year.

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(Editor: Ji Guangxi)

Attachment: Diagnostic Criteria and Efficacy Evaluation Criteria of Allergic Rhinitis (revised in 1997, Haikou)

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Diagnostic Criteria

I. Perennial allergic rhinitis

1. Scoring conditions: ① perennial onset, with three primary clinical manifestations: sneezing (more than 3 consecutive times), runny nose, and nasal mucosa swelling; the cumulative number of onset days in one year exceeds 6 months, and the cumulative onset time in one day exceeds 0.5 hours; ② the course of disease lasts at least one year.

2. Scoring criteria: clear sign of inhaled allergens, personal and/or family history of allergic diseases, and typical signs and symptoms during onset, each rated with 1 point, amounting to 3 points. Positive allergy skin test, with at least one indicator reaching (+ +) or more; positive specific IgE antibody test or positive nasal allergen challenge (NAC) test, and consistent with skin test and medical history; each rated with 2 points, amounting to 4 points. Positive eosinophils on the nasal secretion smear and/or mast cells (basophils) on nasal mucosa smear, rated with 1 point.

A condition rated as 6-8 points will be diagnosed as perennial allergic rhinitis, a condition rated as 3-5 points will be suspected of allergic rhinitis, and a condition rated as 0-2 points may be diagnosed as non-allergic rhinitis.

II. Pollinosis

1. It is a seasonal disease, occurring basically at the same season every year, and it is consistent with the pollinating period of allergenic pollens; it will occur in the same season for at least two years.

2. There are typical clinical signs and symptoms during onset.

3. The nasal secretion (and/or conjunctival scrape) during onset is tested positive for eosinophils, or the nasal mucosa smear is tested positive for mast cells (basophils).

4. The skin test of pollen allergen is positive, with at least one indicator reaching (+ +) or more, or the nasal allergen challenge (NAC) is positive and the conjunctival test is positive.

Efficacy Evaluation Criteria

1. In order to accurately and objectively evaluate the efficacy, signs and symptoms (attached table) should be graded.

Sign grading: if the inferior turbinate is tightly pressed against the nasal base and septum, with the middle turbinate not visible, or the polypoid changes and polyp formation of the middle turbinate mucosa are observed, it is rated as 3 points; if the inferior turbinate is tightly pressed against the nasal septum (or nasal base), with a small gap between the inferior turbinate and nasal base (or nasal septum), it is rated as 2 points; if the inferior turbinate is mildly swollen, with nasal septum and middle turbinate visible, it is rated as 1 point.

2. A control group should be established when conducting clinical studies and summarizing data.

3. Based on the total scores of symptoms and signs before and after treatment, the percentage of improvement is calculated according to the following formula to assess the efficacy of perennial allergic rhinitis:

Attached Table Scoring Criteria for Symptom Grading

Score for grade	Sneezing (number of consecutive sneezes)	Runny nose (frequency of nose-blowing)	Nasal congestion	Nasal itching
1 point	3-9	≤4	Occasional	Intermittent
2 points	10-14	5-9	In-between	Formication, but tolerable
3 points	≥15	≥10	Breathing with mouth almost all day	Formication, intolerable

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$$\frac{\text{Total score before treatment} - \text{Total score after treatment}}{\text{Total score before treatment}} \times 100\%$$

≥ 51% is deemed as significantly effective, 50%-21% is deemed as effective, and ≤ 20% is deemed as ineffective.

5. In the prospective study, the symptoms and signs scores before and after pollinosis treatment should be compared with the quantity and species of pollens floating in the air in the local area that year.

Efficacy assessment is divided into short-term (except desensitization treatment) and long-term efficacy. The short-term efficacy will be assessed at the end of treatment, and the long-term efficacy will be assessed at least one year after the end of treatment.

The efficacy of desensitization therapy will be assessed after two years of continuous treatment (excluding rapid desensitization therapy).

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- Case Report -

Five Cases of Giant Meningioma of Middle and Posterior Skull Base

Wang Tianduo, Li Mei, Xu Anting

Five patients with giant meningioma of the middle and posterior skull base were admitted in our department. Based on the location and invasion extent of the tumor, four different surgical approaches were used.

Patient 1, male, 37 years old. On Oct-17-1960, he was admitted to our hospital for 25 years of left upper neck mass. He complained of hoarseness, dysphagia, occasional aspiration, headache, dizziness, etc. He was observed with the anterior, inferior, posterior, and mandibular bulge of the left ear, a firm mass on the lateral part of the neck with a size of about 10 cm × 10 cm × 5 cm without adhesion to the skin. The inferior wall of the left ear canal was compressed and displaced upward, the left soft palate was bulged, and the tonsil was pushed anteroinferiorly and medially. The lateral pharyngeal wall bulged inward from the nasopharynx to the hypopharynx, the left arytenoid cartilage and epiglottis were displaced, and the left vocal cord mobility was restricted. On Nov-2-1960, the surgery was performed via the transcervical-transparotid approach. Since the carotid arteries and veins and vagus nerves were enveloped by the tumor, with severe bleeding, making it difficult to separate the tumor from these tissues, the surrounding tissues were excised along with the tumor. When the tumor was incised, it was observed that the internal carotid artery was very thin and tortuous, and the internal jugular vein cavity was closed. The pathological diagnosis was meningioma. The patient recovered and was discharged after surgery. After 36 years, at a follow-up visit, CT scan showed the patient relapsed the localized meningioma at the middle cranial base, with no symptoms. He was 73 years old and not treated by further surgery.

Patient 2, female, 13 years old. On Feb-9-1974, she was admitted to our hospital for more than 3 years of a mass in the upper part of her right neck. Physical examination: a firm and stabilized mass with a size of about 6 cm × 5 cm × 4 cm was observed deep in the right mandible and posterior mandibular angle, with adherence to the skin. The lateral walls of nasopharynx, oropharynx, and laryngopharynx were swollen and bulged inward into the pharyngeal cavity. On Feb-13-1974, she underwent a surgery via the transcervical-transparotid approach. It was found that the internal carotid arteries and veins and vagus nerves were encapsulated in the tumor, which was difficult to isolate. The surgery was stopped due to the opinions of her family members. Biopsy was taken during the surgery, and the pathological diagnosis was meningioma. On Mar-6-1974, she underwent a second surgery. When isolating the tumor, the stimulation of glomus caroticum led to the temporary drop in blood pressure and respiratory arrest. After rescue therapy, the tumor was completely excised. The wound healed well, with a sequela of hoarseness. She had no recurrence for 10 years after surgery and was lost to follow-up later.

Patient 3, male, 28 years old. On Jun-9-1974, he was admitted to our hospital for temporal tumor with one and a half years of tinnitus and deafness of right ear, 4 months of headache, and 4 days of right facial paralysis. A mass in the lower part of the right tympanic cavity was observed. On Jul-3-1974, the temporofrontal incision was performed. When removing the squamous part of the temporal bone with a rongeur and cutting open the cerebral dura mater, it was found that the tumor bulged outward. After electrocautery was performed along the base of the tumor to the semilunar ganglion, the tumor was resected step by step. The tumor size was about 5 cm × 6 cm × 6 cm. Due to his poor condition, tympanic lesions were not treated. Eight months later, he was re-admitted to our hospital due to water running from the right ear for 2 months, and the mass in the tympanic cavity had protruded to the opening of the external auditory canal. On Mar-24-1975, a mastoidotomy was performed. It was found that the tumor filled the external auditory canal, tympanic cavity, and eustachian tube. There were tumors around the internal carotid artery with excessive bleeding. The tumor around the artery could not be completely removed. Postoperative pathological diagnosis was malignant meningioma. He died of tumor recurrence 2 years later.

Patient 4, male, 38 years old. On Jul-17-1995, he was admitted to our hospital due to a tumor on the left cheek for 5 years, protopsis of left eyeball, and nasal congestion for 8 months. The left eyeball protruded forward and upward, and a soft mass was palpable on the left cheek. A dark red mass was observed at the posterior end of the left nasal cavity and nasopharynx. MRI and CT films showed that the mass involved the left nasal cavity, nasal sinuses, nasopharynx, pterygomaxillary fissure, orbital apex, infratemporal fossa, middle cranial fossa, and cavernous sinus. On Aug-3-1995, he underwent a surgery with the help of the Department of Neurosurgery. Extracranial tumor resection: the skin and subcutaneous tissue were incised by the skin incision over the maxillary bone, and a bone flap was created from the inner, superior, and anterior walls of the maxillary sinus, with the masseter muscle as the pedicle. It is rotated outward and downward. The maxillary sinus cavity was obviously reduced in size, the posterior wall of the maxillary sinus was thin, and the intrasinus mucosa was intact. The tumor was lobulated and located in the pterygopalatine fossa, infratemporal fossa, lower half of the orbit, orbital apex, and buccal, and involved the ethmoid sinus and the lateral wall of nasopharynx. When it was resected, there was a lot of blood loss. Intracranial tumor resection: a temporofrontal skin incision was made 1 cm in front of the tragus, extended upward into the hairline, and curved to the midpoint of the forehead, the subgaleal skin flap was turned forward and downward, the temporal muscle was turned from forward and downward, the zygomatic arch was removed with a rongeur, and the temporal muscle was turned downward and outward. The lateral part of the greater wing of the sphenoid bone was removed with a rongeur, and the dura mater was cut with the sphenoid ridge as the center. It was seen that the tension of brain tissue was high, the left temporal pole was resected by electrocautery, the tumor was multi-nodular, with the surface covered by tortuous blood vessels, and it occupied the middle cranial fovea. The upper wall of the tumor was incised by electrocautery, part of the tumor was excised within the cyst, and then the cyst wall was excised to the lateral wall of the cavernous sinus. The tumor invading the cavernous sinus and the sellar region was not resected. The pathological diagnosis was meningioma. One year later, the follow-up visit showed that the intracranial tumor had expanded but was not treated.

Patient 5, male, 35 years old. On Jan-10-1996, he was admitted to our hospital due to recurrence of meningioma. He received meningioma resection of the cerebellopontine angle 15 years ago and the gamma knife treatment 4 years ago. Physical examination: paralysis of the right cranial nerve VII-XII, and a mass palpable at the right mandibular angle. CT scan showed that the tumor at the posterior cranial fossa, petrous bone, and mastoid mass of middle ear expanded forward and encroached on the middle skull base. On Nov-21-1996, a large C-shaped incision was made behind the ear, and the flap was turned forward. First, the tumor at the mastoid, petrous bone, and partial posterior cranial fossa of the middle ear were removed. The condyloid process of the mandible was dislocated from the glenoid cavity, and the mandibular ligament of the sphenoid and styloid processes was separated. The mandible was pushed forward and downward to expose the mass at the parapharyngeal and infratemporal fossa and completely remove the mass. The defects in the mastoid and petrous bone of the middle ear were filled with the temporal muscle flap. The wound had primary healing. The patient is in good condition now.

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Author's affiliation: E.N.T Department, The First Affiliated Hospital of Shandong First Medical University, Jinan, 250012