

原文題目(出處)：	Vestibular schwannoma presenting as oral dysgeusia: An easily missed diagnosis. Case Rep Dent 2016; Article ID 7081919
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內文：

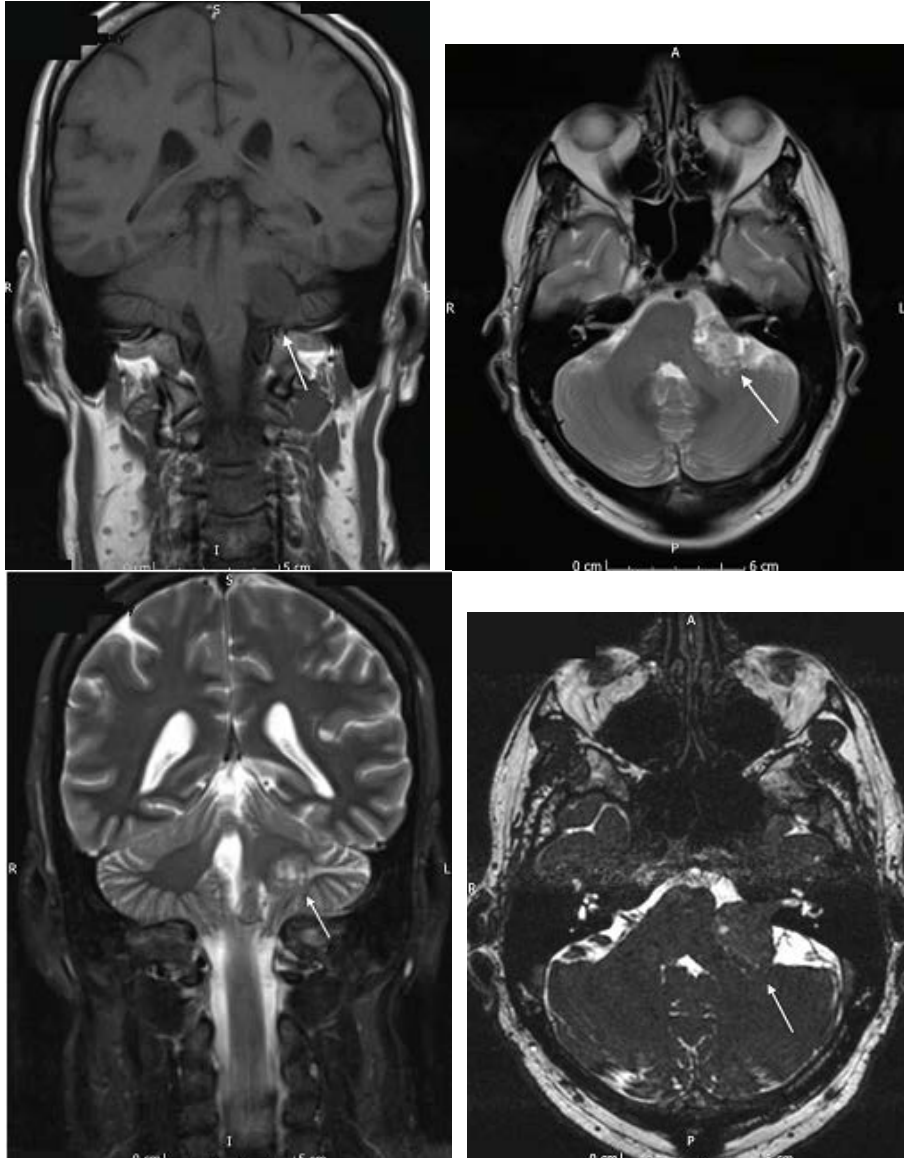
Introduction

- ✓ Oral dysgeusia is defined as a gustatory disturbance relating to a distorted taste perception, or to a persistent taste sensation in the absence of stimulation.
- ✓ Identifiable causes of dysgeusia:
 1. Local factor: infections of the oral cavity, such as candidiasis or dental abscess, trauma, or hyposalivation.
 2. Drugs: over 250 drugs associated with oral dysgeusia
 3. Systemic disease: underlying haematinic deficiency, diabetes mellitus, Crohn's disease, or Sjögren's syndrome
 4. Peripheral nervous system: Tumours affecting the cerebellopontine angle, such as a schwannoma or meningioma
 5. Central nervous system: ischaemia, haemorrhage, or demyelination affecting the gustatory pathway in the brain, or temporal lobe epilepsy
- ✓ In a significant number of cases, the taste disturbance cannot be attributed to an identifiable cause. Although altered taste is a rare symptom of vestibular schwannoma, this case illustrates the need for a high index of clinical suspicion.

Case presentation

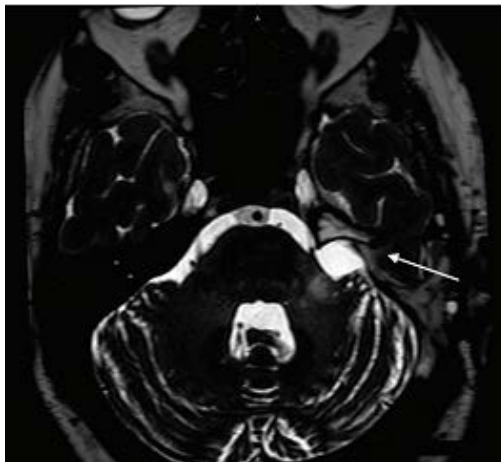
- ✓ History: This 50 y/o male patient complained of a constant salty taste for six months. His General Medical Practitioner had empirically prescribed omeprazole to exclude gastric esophageal reflux disease as a potential cause. However, this was ineffective and therefore the patient had discontinued the treatment. Additionally, the patient also complained of a cracked tongue surface and intermittent numbness of his lower left lip and chin. Medical history was clear except for tinnitus and a feeling of fullness affecting the left ear for the past three years. This had been diagnosed as Eustachian tube dysfunction and treated with fluticasone nasal spray. This had no benefit in relieving the symptoms and was discontinued
- ✓ Examination:
 - Cranial nerve examination at the initial appointment
 1. no motor deficit of facial nerve
 2. Eyes : no lacrimation abnormalities identified
 3. Swallow and phonation were not affected
 4. Uvula : no deviation
 5. Palate and tongue movement :normal
 - Extra oral examination of the head and neck
 - ✓ no facial swelling or cervical lymphadenopathy
 - Intra oral examination
 - ✓ no mucosal lesions detected or obvious source of infection
 - Cracked tongue surface was deemed to be a fissured tongue

- ✓ Investigations:
 - Orthopantomogram radiograph
 - ✓ Absence of dental or bony pathology
 - Blood investigations
 - ✓ Full blood count, blood glucose, serum ferritin, folate, and vitamin B12 levels, all resulted as normal
 - Magnetic resonance imaging of the head
 - ✓ A large vestibular schwannoma (2.7 x 2.4 x 2.3 cm) was located in the left cerebellopontine angle, involving the left internal auditory meatus. There was associated compression of the brainstem and distortion of the fourth ventricle, without hydrocephalus



- ✓ Treatment:
 - ENT: 45 to 50 decibels of sensorineural hearing loss in the left ear on audiogram. (normal: 0 to 20 dB); The hypoesthesia of the left trigeminal nerve had worsened, with a constant tingling affecting the maxillary and mandibular divisions and reduced pin prick sensation in these regions
 - Treatment options:
 - ✓ monitoring with serial scanning to determine extent of tumor growth
 - ✓ microsurgery to remove or debulk the tumor

- due to the large size of the vestibular schwannoma, the neurological symptoms, and the associated compression of the brain stem
 - A translabyrinthine approach was used, which leads to complete hearing loss on the affected side but aims to preserve the facial nerve
- ✓ stereotactic radiosurgery
- ✓ Outcome:
- Histology: a schwannoma comprising densely cellular Antoni A areas with less densely cellular Antoni B areas. There was no significant mitotic activity or necrosis
 - Immunohistochemistry: positive for S100
 - Diagnosis: benign schwannoma of the left cerebellopontine angle, WHO Grade I
 - Oral dysgeusia has improved since the surgery, with an occasional salty taste still noticed
 - CROS hearing aids to help with his hearing loss on the left side
 - Postoperative magnetic resonance imaging was performed at six months postoperatively. The remnant of the schwannoma will be monitored by the Neurosurgery Team with a further magnetic resonance imaging in one year



Discussion Vestibular schwannomas

- ✓ Definition: acoustic neuromas, benign tumors of the vestibulocochlear nerve

- ✓ account for 80–90% of cerebellopontine angle tumours
- ✓ Symptoms: unilateral hearing loss, tinnitus, or unsteadiness
- ✓ Compression of other structure:
 - Trigeminal nerve: facial hypoesthesia, which is found in 7–26% of patients with vestibular schwannoma, and usually begins in the region of the anterior mandible
 - Facial nerve: 2.2–17%, Pressure on the motor fibres can lead to facial weakness; sensory branch, anterior two-thirds of the tongue, via the chorda tympani, can have an impact on taste
- ✓ Facial nerve dysfunction is rarely the presenting symptom of vestibular schwannoma. (But literature shows 17% of patients)
- ✓ Study:
 - Watanabe et al. found that preoperative taste disturbances were found in 28.7% of patients undergoing surgery for a vestibular schwannoma
 - Sahu et al. tested 142 patients with vestibular schwannoma and found taste disturbances present in 40.8% of patients preoperatively
 - Matthies and Samii found that taste disturbances were only reported in 1.8% of 1000 patients diagnosed with vestibular schwannoma, although they did not formally test this and assumed that the actual incidence would be higher.
- ✓ Although oral dysgeusia is rarely the presenting symptom, it is clear that a significant proportion of patients with vestibular schwannoma do experience taste disturbances. The history should specifically include questions relating to sensory loss, and the appropriate investigations should be performed to rule out any significant underlying pathology.

題號	題目
1	Vestibular schwannomas 常見的 clinical finding 下列何者不屬之? (A) Hearing loss or tinnitus (B) Facial palsy (C) Oral dysgeusia (D) Tingling
答案(C)	出處：Oral and Maxillofacial PATHOLOGY,3rd edition , Neville, et al P.529
題號	題目
2	下列有關 Vestibular schwannomas 的敘述何者不正確? (A) 顯微鏡下細胞核呈現柵狀排列(nuclear palisading) (B) 腫瘤細胞在免疫組織學反應呈現 S-100 (-) (C) 治療方式由 surgical excision 為最佳而且復發率較低 (D) 大部分的 Vestibular schwannomas 會影響 CN VIII Vestibulocochlear nerve
答案(B)	出處：Oral and Maxillofacial PATHOLOGY,3rd edition , Neville, et al P.531