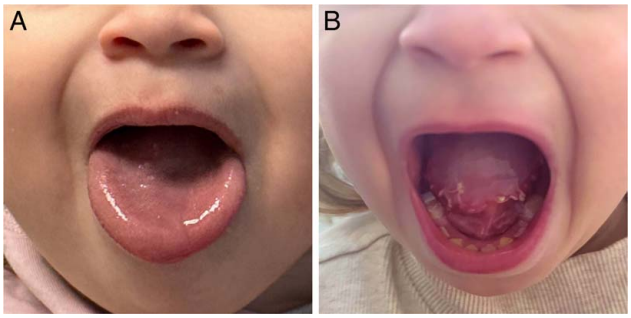

FIGURE 2. Images depicting patient 3 months preoperatively (A) and 1 month postoperatively (B).

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Nasopharyngeal Carcinoma Masquerading as Temporomandibular Disorder

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Abstract: Trismus, commonly associated with temporomandibular disorders (TMD), trauma, or infection, can occasionally manifest as a rare symptom of malignancy. The author present a case of misdiagnosed carcinoma initially presenting with features resembling TMD. A 72-year-old presented with left facial pain, earache, and progressive difficulty in mouth opening. Initial assessments suggested TMD, but further investigation revealed a nasopharyngeal mass indicating squamous cell carcinoma. This case underscores the need for a comprehensive approach in evaluating trismus to rule out malignancy. Early recognition and appropriate referral for further investigation, including imaging and biopsy, are essential for timely diagnosis and management of malignancy masquerading as TMD.

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Key Words: Mouth opening restriction, nasopharyngeal carcinoma, trismus

Trismus, defined as the limited range of mandibular movement resulting in reduced mouth opening, represents a complex clinical phenomenon with a myriad of underlying etiologies.[1] This condition poses a significant diagnostic challenge to clinicians due to its multifactorial nature and diverse clinical presentations. The pathophysiology of trismus is multifaceted, encompassing both intra-articular and extra-articular factors.[2] Intra-articular causes may involve dysfunction within the temporomandibular joint (TMJ), such as disc displacement, joint effusion, or arthritis, leading to mechanical obstruction of mandibular movement. Extra-articular causes encompass a broad spectrum of conditions, ranging from myofascial pain syndrome and muscular dystrophies to infections, trauma, and neoplasms infiltrating the masticatory apparatus.[3] Among these, malignancies affecting the oral cavity, maxillofacial region, or adjacent structures can manifest with trismus as an early or progressive symptom, complicating the diagnostic process.[4,5] Advances in imaging modalities, such as magnetic resonance imaging (MRI) and positron emission tomography-computed tomography (PET-CT), have enhanced our ability to detect occult malignancies masquerading as benign entities, underscoring the evolving landscape of trismus evaluation.[6]

Under these circumstances, this report aims to clarify the diagnostic challenges of malignancies presenting with trismus and highlight the importance of careful evaluation in these patients. By presenting a case of carcinoma initially misdiagnosed as TMD, we aim to illustrate the clinical complexities in assessing trismus and advocate for a multidisciplinary approach to improve patient care.

CASE REPORT

A 72-year-old male presented with a chief complaint of left facial pain and severe trismus, accompanied by a 2-month history of progressively worsening symptoms. The patient reported that his symptoms initially manifested as left facial pain, which had been evaluated at another clinic 4 months earlier. At that time, he was diagnosed with trigeminal neuralgia and managed conservatively with analgesic medications. However, his symptoms failed to resolve and instead intensified over time, prompting referral to our institution for further evaluation and management.

Upon initial consultation, the patient described the pain as localized to the left temporal region and preauricular area, exacerbated during mouth opening and chewing. Clinical examination revealed mild tenderness upon palpation of the left temporal and masseter muscles, although no palpable masses or lymphadenopathy were detected. In addition, the patient exhibited signs of neurogenic facial pain along the distribution of the trigeminal nerve. Maximal mouth opening was measured at 10 mm, with passive stretching maneuvers proving ineffective in improving the range of motion.

To further evaluate the patient's symptoms, diagnostic imaging studies were performed, including panoramic radiog-

raphy and magnetic resonance imaging (MRI) of the TMJ. Panoramic radiography revealed no significant changes in the left mandibular condyle or mandibular fossa (Fig. 1A).

Arthrocentesis of the TMJ was performed to improve condylar movement and alleviate pain. Following the procedure, there was a modest increase in mouth opening distance to 18 mm; however, the patient-reported persistent pain and limited functional improvement at the 1-week follow-up visit.

Several days after the follow-up visit, the patient-reported new-onset pain localized to the left maxillary sinus region, accompanied by slight paresthesia extending from the left lower eyelid to the upper lip. Given the atypical nature of these symptoms and the lack of improvement with conservative measures, an MRI was obtained to reassess the TMJ and surrounding structures. The contrast-enhanced MRI demonstrated a large, heterogeneous mass extending from the nasopharyngeal region to the left maxillary sinus, retromolar trigone, pterygopalatine fossa, and foramen ovale (Fig. 1A). The mass exhibited invasive features and encroachment upon adjacent anatomic structures, raising concerns for malignancy.

Given the concerning imaging findings, consultations with neurology and otolaryngology were sought. An extraoral biopsy of the suspicious mass was performed under local anesthesia, with samples obtained from the nasopharyngeal region and adjacent structures. Histopathologic analysis confirmed the presence of squamous cell carcinoma.

Due to the advanced stage and aggressive nature of the carcinoma, a multidisciplinary team comprising oral and maxillofacial surgeons, oncologists, and radiation therapists formulated a comprehensive treatment plan. Curative-intent surgical resection was deemed unfeasible due to the extent of the disease and metastases. Palliative treatment, including radiation therapy and chemotherapy, was recommended to alleviate symptoms, slow disease progression, and improve quality of life.

The patient has since commenced palliative radiotherapy and chemotherapy, with ongoing monitoring and supportive care.

DISCUSSION

Trismus, characterized by restricted mandibular opening, presents a diagnostic challenge due to its diverse etiologies, ranging from benign conditions like TMD to potentially life-threatening malignancies. Our case underscores the importance of maintaining a high index of suspicion for malignancy in patients presenting with trismus, particularly when conventional therapies for TMD fail to yield improvement.

The association between malignancy and TMD-like symptoms has been documented in the literature. Beddis and colleagues reported cases of delayed diagnosis of carcinoma presenting with features of TMD, prompting the development of a checklist to aid clinicians in identifying suspicious features suggesting a possible non-TMD cause of trismus. This emphasizes the need for a systematic approach to trismus evaluation, incorporating clinical history, physical examination, imaging studies, and, when indicated, biopsy.[6]

Malignancy presenting with trismus is relatively rare but can have significant implications for patient outcomes if not promptly recognized and managed. Trismus may be a primary presenting sign of malignancy, particularly in cases of nasopharyngeal carcinoma, where it is considered an indicator of an advanced primary tumor. However, it is essential to recognize that malignancy can mimic other symptoms of TMD, such as persistent pain, without necessarily causing trismus.[7,8] Therefore, a thorough clinical evaluation is paramount to rule out underlying malignancy in patients with refractory or atypical presentations of TMD.

In our case, despite initial assessment suggesting TMD, further investigation revealed a nasopharyngeal mass, highlighting the need for a comprehensive approach to trismus evaluation. The delay in diagnosis resulted in the advanced stage of the disease, necessitating palliative treatment. This underscores the importance of early recognition and appropriate referral for further investigation in patients with trismus.

The management of malignancy presenting with trismus depends on the underlying etiology and stage of the disease. Treatment modalities may include surgery, radiation therapy, chemotherapy, or a combination thereof.[6,8] In cases where the disease is advanced, palliative treatment aimed at symptom management and improving quality of life may be necessary.[9]

While the majority of patients with nasopharyngeal carcinoma experience recovery of trismus following treatment, our patient exhibited persistent trismus even after radiotherapy and chemotherapy. This may be attributed to the advanced stage of the disease at the time of diagnosis or the extent of the treatment required. Long-term follow-up is essential to monitor for disease progression or recurrence and to address any persistent symptoms or complications.

CONCLUSION

This case report underscores the potential misdiagnosis of malignancy presenting with trismus and emphasizes the need for clinicians to adopt a comprehensive approach to trismus evaluation. Early recognition and appropriate referral for further investigation, including imaging and biopsy, are essential for timely diagnosis and management of malignancy masquerading as TMD. Clinicians managing patients with trismus should remain vigilant for atypical presentations and consider malignancy in the differential diagnosis, particularly in cases refractory to conventional therapies.

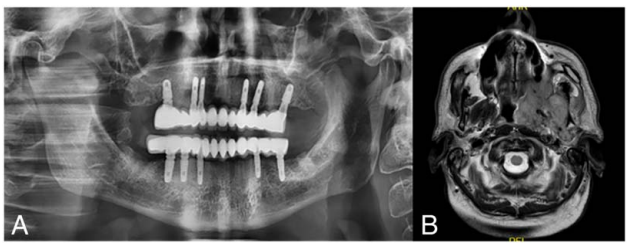

FIGURE 1. (A) Panoramic radiograph showing no significant changes in the left mandibular condyle or mandibular fossa. (B) Axial section of a contrast-enhanced CT scan demonstrating a large, heterogeneous mass extending from the nasopharyngeal region.

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A Patient With Exposed Costal Cartilage After Microtia Surgery Successfully Treated With Perifascial Areolar Tissue Grafting

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Abstract: Postoperative costal cartilage exposure is a troublesome complication following costal cartilage grafting for microtia. The authors report a case of attempted recovery using perifascial areolar tissue (PAT) transplantation that achieved favorable results. The patient was a 13-year-old boy, who developed a 27 × 11 mm^2 skin ulcer with a 6 × 3.5 mm^2 area of exposed cartilage at the helix 1 month after ear ablation surgery. PAT harvested from above the trapezius muscle was grafted onto the ulcer. The wound was closed 14 days later using a split-thickness skin graft from the head. PAT transplants can be harvested from anywhere in the body, are minimally invasive, and are highly flexible. This case demonstrates that, although factors such as the extent and location of cartilage exposure must be considered, PAT transplants are an option for microtia salvage surgery.

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Key Words: Auricular reconstruction, ear framework, lubricant adipofascial system (LAFS), salvage

Costal cartilage frame grafting is a standard procedure for auricular microtia reconstruction; however, frame exposure is a troublesome complication. Some cases can be cured conservatively; in other cases, frame contour deformation occurs due to absorption or infection spreading to the entire frame, making removal necessary. Therefore, covering the exposed cartilage should be considered as soon as possible. Several options are available for salvage surgery, depending on the site and area of exposure. We report a case in which a pressure ulcer with costal cartilage exposure occurred on the helix after auricular elevation was closed using perifascial areolar tissue (PAT) and 2-stage split-thickness skin grafting.

CASE

A 13-year-old boy had microtia with a low hairline and low external auditory canal, almost anotia (Fig. 1A). The patient underwent 2-stage surgery at another hospital. The first operation used a costal cartilage frame graft, which was covered with a temporoparietal fascial flap (TPFF); a full-thickness skin graft was performed using the contralateral auricular region's posterior surface. In the second operation, an ear elevation costal cartilage block graft was performed. The cartilage was covered with a deep mastoid fascia flap, and a full-thickness skin graft was performed from the lower abdomen. One month after the second surgery, the patient visited our outpatient clinic, and a 27×11 mm^2 area of skin necrosis in the helix was found (Fig. 1B). Debridement of the necrotic skin exposed a central 6×3.5 mm^2 cartilage frame (Fig. 1C). We considered covering the exposed cartilage with a flap distant

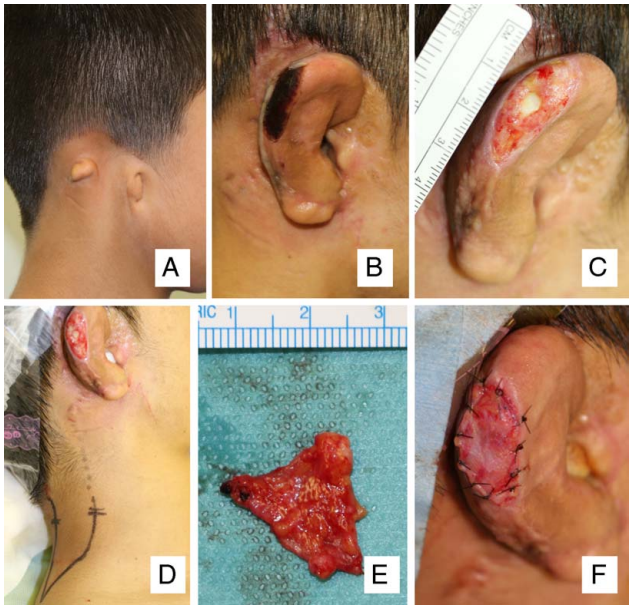

FIGURE 1. (A) Appearance before auricular reconstruction. (B) At the follow-up visit, the skin of the helix is necrotic. (C) After removing the black necrotic skin, cartilage exposure is evident in the center of the ulcer. (D) Design of the distal flap in the posterior neck (dotted and solid lines). The solid line area is incised, and perifascial areolar tissue (PAT) on the trapezius fascia is harvested. (E) Harvested PAT. (F) Appearance immediately after PAT transplantation.