Stylalgia: A Missed Diagnosis

Stylalgia: Błędne rozpoznanie

Aseem Mishra, Jyoti Dabholkar, Jaini Lodha MS, Arpit Sharma, Shashikant Mhashal

Department of Otolaryngology, Seth G. S Medical College and K.E.M Hospital

ABSTRACT:

Aims and objective: To study the occurrence of stylalgia in patients presenting with pain in the head and neck region and appropriate management options.

Materials and methods: This was a hospital-based study. This study analyzed prospectively patients who presented to the otolaryngology outpatient department with complaints of throat pain, globus, neck pain, facial pain, odynophagia, throat pain associated with earache, and neuralgic pain, and were diagnosed with stylalgia and managed with styloidectomy or subjected to medical treatment.

Results: Out of 20 patients (4 males and 16 females), 14 patients became symptom-free, while 6 patients experienced relief of symptoms. There was no worsening of symptoms in any of the patients.

Conclusion: The incidence of Stylalgia is higher in a female population. Elective management of patients after assessing the response to treatment, and then offering surgical management is of value for adequate patient care, prevention of unnecessarily delayed diagnosis and appropriate treatment.

KEY WORDS: throat pain, stylalgia

STRESZCZENIE:

Cel: Zbadanie występowania stylalgii u pacjentów z bólem głowy i okolicy szyi oraz analiza odpowiednich metod terapeutycznych.

Materiał i metody: Badanie prowadzono w warunkach szpitalnych. Podczas badania przeprowadzono prospektywną analizę pacjentów, którzy zgłaszaли się do poradni otolaryngologicznej z objawami takimi jak: ból gardła, wrażenie ucisku/ciała obcego w gardle (globus), ból szyi, ból twarzy, bolesne przełykanie (odynofagia), ból gardła związany z bólem ucha oraz nerwoból, u których rozpoznano stylalgię i przeprowadzono zabieg styloidektomii (usunięcie ryłowatego) lub zastosowano leczenie farmakologiczne.

 Wyniki: Spośród 20 pacjentów (4 mężczyzn i 16 kobiet), u 14 pacjentów uzyskano całkowite ustępienie objawów, natomiast u 6 pacjentów nastąpiło zługodzenie dolegliwości. U żadnego pacjenta nie doszło do nasilenia objawów.

Wnioski: Częstość występowania stylalgii jest większa u kobiet. Planowe postępowanie terapeutyczne po ocenie odpowiedzi pacjenta na leczenie, a następnie zaproponowanie leczenia chirurgicznego mają istotne znaczenie w odpowiedniej opiece nad pacjentem oraz w zapobieganiu niepotrzebnym opóźnieniom dotyczącym rozpoznania i właściwego leczenia.

SŁOWA KLUCZOWE: ból gardła, stylalgia
INTRODUCTION

Throat pain presents as a diagnostic as well as therapeutic challenge in various circumstances. There are numerous etiologies of it. Stylalgia is one of them, and is often missed in very busy outpatient departments. It presents as a dull pain arising near the tonsillar fossa and radiating to the ear; it increases with swallowing. The condition often remains undiagnosed and it is frequent that analgesics or even antibiotics are prescribed unnecessarily. With an increasing incidence of laryngopharyngeal reflex and allergic rhinitis symptoms, stylalgia, a condition that requires attention, remains undiagnosed and a rare entity.

MATERIALS AND METHODS:

This was a hospital-based study.

This is a prospective study carried out on 20 patients who presented to the otolaryngology outpatient department with complaints of throat pain, globus, neck pain, facial pain, odynophagia, throat pain associated with earache, and neuralgic pain, and were diagnosed with stylalgia and managed with styloidectomy or subjected to medical treatment.

Patients’ detailed history was taken. Head and neck examinations were carried out. Symptoms were analyzed and patients with the following complaints were included:

- Throat pain
- Odynophagia
- Pain radiating to the neck
- Pain radiating to the ear
- Globus
- Pain on neck movements
- Neuralgic pain along the glossopharyngeal nerve

Patients’ examination included palpation of the styloid process, to observe aggravation of symptoms on palpation. Radiological examinations were conducted to confirm the elongation of the styloid process. Patients were administered the following medical treatment: carbamazepine 200 mg BD for 2 to 4 weeks. Relief of symptoms was observed. Surgical management was offered only when the patients responded to medical treatment and the symptoms recurred on stopping the treatment.

Surgery was performed under general anaesthesia and tonsillectomy was performed for exposure. Styloidectomy was carried out orally. Incision was made on the styloid process, the periosteum was elevated, and the styloid process was fractured. No sutures were taken over the pillars. Tonsillectomy was performed only on the side of styloidectomy. Patients were prescribed oral antibiotics for 5 days post-op, and analgesics for 2 weeks.

The patients were followed up for 1 month every 2 weeks, and then for 6 months every 2 month. Relief of symptoms was graded on the visual analogue scale.

RESULTS AND OBSERVATION

Out of 20 patients (16 females and 4 males), 9 patients presented with throat pain, 5 patients complained of pain on swallowing, 2 patients had pain on moving the neck, 2 patients presented with pain over the jaw, 1 with globus, and 1 with neck pain.

All the patients experienced aggravation of symptoms on palpation of the styloid process.

The average length of the removed styloid process ranged from 2.2 cm to 4.8 cm.

Two patients responded to medical management with complete relief after a 2-month course of carbamazepine treatment.

Fourteen patients experienced complete relief of symptoms, 5 patients had partial relief, and 1 patient had no relief. There was no worsening of symptoms in any patient.

DISCUSSION

Eagle’s syndrome includes a constellation of symptoms of facial pain, ear pain, dysphagia, and globus sensation secondary to an enlarged styloid process. The length of the styloid process is usually 2-3 cm. When it is more than 3 cm, it is known as elongated. The term stylalgia was coined by Watt W. Eagle, who also described the types of stylalgia as classic and carotid-artery type.

Classic type: pain secondary to stimulation of the trigeminal, facial, glossopharyngeal, and vagus nerve. It is seen following tonsillectomy.

Carotid-artery type: when the styloid process becomes involved with the carotid nerve plexus.

Females are affected more than males 2, and in our study females were affected four times more frequently than males.
The pathophysiological mechanism of symptoms is not very clear. The following theories are proposed:11

- Traumatic fracture of the styloid causing proliferation of granulation tissue, which compresses the adjacent structures.
- Compression of adjacent nerves, glossopharyngeal, lower branch of the trigeminal nerve or chorda tympani.
- Stylohyoid insertion tendinitis.
- Irritation of the pharyngeal mucosa by direct compression or post-tonsillectomy scarring.

The most probable cause for this seems to be glossopharyngeal neuritis as the nerve lies just medial to the styloid process. Occasionally, the fifth nerve and rarely the tenth cranial nerve may be involved.12 The pain can also be attributable to pseudoarthrosis between the ossified stylohyoid ligament and the styloid process, which causes intermittent locking or fixation.13 Another mechanism is bony stiff clasp formation owing to ossification of the stylohyoid ligament. This causes irritation of the sympathetic plexus around the carotid artery or carotid sinus branch of the ninth nerve, causing neck pain along the carotid artery.14

Reichert’s cartilage from the second branchial arch leads to formation of the styloid process.15 It is situated between the internal and the external carotid arteries juxtaposed near the cranial nerve VII, IX, X, XI, and XII.16 The cause of stylalgia is mostly acquired secondary to a trauma or sometimes congenital. Other frequent causes include infection and early menopause.2 Localised infection progressing to osteitis, periostitis and tendinosis may also incite pain. There can also be stimulation of the superior and inferior carotidotympanic nerves and the carotid sympathetic plexus by an elongated styloid process.11

Eagle’s Syndrome is the diagnosis of exclusion. The history may include tonsillectomy or neck trauma.18 The physical examination may be remarkable with a palpable styloid process in the tonsillar fossa. Palpation may elicit pain or foreign-body sensation, reproducing symptoms. The diagnosis is established if an injection of lidocaine into the tonsillar fossa has also been used but the results are short-lived.20 Long-lasting symptom relief requires surgical removal of the elongated portion of the styloid process.2,19 In certain patients, medical management with gabapentin for 6-8 weeks may be required. Two surgical approaches have been described: 10 intraoral and extraoral.

Intraoral. The advantages of the intraoral approach include less operating time and a more pleasing cosmetic result. However, some otolaryngologists find that this approach is more challenging because diminished visualization increases the risk of iatrogenic injury to the nerves. Also, control of arterial and venous bleeding in the vicinity of the resection may be difficult. Finally, the intraoral procedure involves incising the posterior pharynx to the deep cervical fascia, which creates an opportunity for the development of a deep neck space infection. However, in our study, all styloidectomies were carried out by intra-oral approach and all the cases were uneventful in the intraoperative and postoperative period. It has to be noted that the mucoperiosteal layer over the styloid should be completely separated prior to excising. Excising without separating the perisoteum may lead to persistence of symptoms. Extraoral. On the other hand, the advantages of the extraoral approach include good visualization and a reduced risk of infection.19 The disadvantages are that it requires more surgical time and leaves a visible scar.

The symptoms of stylalgia mimic that of pharyngitis and a wrong diagnosis will lead to unnecessary delay in appropriate treatment of the patient. The diagnosis of stylalgia should be considered in the differentials of throat pain. A suspicion towards the entity and a clinical examination to rule out this condition will help in clinching the diagnosis.

CONCLUSION

A stepwise therapy of the styloid syndrome including medicamentous treatment, transoral styloid fracture and resection of the styloid process has proven to be of value. If the styloid process can be palpated submucosally, a transoral resection may be chosen. However, using this route, styloidectomy should be conducted after complete separation of the periostium.

In patients with long-standing throat pain, the diagnosis of stylalgia should be considered. Stylalgia can be managed effectively. The surgical option can be provided to patients with recurrent symptoms. The diagnosis of stylalgia, being a rare entity, should not be ruled out.
Bibliography


Corresponding author: Dr Aseem Mishra, Research Associate ICGC India Project Head and Neck Services, Tata Memorial Hospital, Mumbai, India 400012, +91 8080611946, e-mail: draseemmishra@gmail.com

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