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Case Report

Unraveling Eagle's Syndrome: Comprehensive Case Report

Rakshit Dalal

Private Practitioner, Dalal Dental Clinic, Mumbai, Maharashtra, India

ABSTRACT:

Eagle's Syndrome, a rare and often under diagnosed medical condition, presents a complex array of symptoms, including chronic throat pain, neck discomfort, ear-related issues, and swallowing difficulties. This comprehensive study endeavors to provide a profound understanding of this enigmatic syndrome, shedding light on its clinical presentation, diagnostic intricacies, treatment modalities, and the substantial impact it exerts on patients' lives. By adopting a multidisciplinary approach, this research transcends the conventional boundaries of medical specialties. It amalgamates insights from otolaryngologists, radiologists, and pain management experts to offer a holistic perspective on Eagle's Syndrome. Through meticulous examination of clinical cases, meticulous diagnostic protocols, and rigorous statistical analysis, this study contributes significantly to the broader medical knowledge in this field. This study underscores the paramount importance of accurate diagnosis and personalized management strategies in mitigating the challenges posed by Eagle's Syndrome. Furthermore, it emphasizes the pressing need for heightened awareness and understanding of this condition among healthcare providers, ultimately aiming to enhance the quality of care and improve the lives of individuals affected by Eagle's Syndrome. In a medical landscape where rare conditions like Eagle's Syndrome often elude timely diagnosis and appropriate treatment, this research serves as a beacon of knowledge and hope for both patients and clinicians.

Key words: Eagle's Syndrome, Diagnosis, Treatment, Multidisciplinary Approach, Medical Research

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Corresponding author: Rakshit Dalal, Private Practitioner, Dalal Dental Clinic, Mumbai, Maharashtra, India

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INTRODUCTION

Eagle's Syndrome, named after the otolaryngologist who first described it, Watt Weems Eagle, is a rare but intriguing medical condition characterized by elongated styloid processes or calcified stylohyoid ligaments[1]. Initially documented in the mid-20th century, the syndrome's historical context has shaped its recognition and understanding within the medical community. Traditionally, Eagle's Syndrome was alleged to primarily manifest as a simple anatomic variation, often unnoticed due to its rarity. Conversely, over time, advancements in medical imaging and diagnostic techniques have unveiled its potential clinical significance[2]. This led to the recognition of a complex set of symptoms associated with the elongated styloid processes or calcified ligaments, which can drastically damage an individual's quality of life. Regardless of its chronological roots and the advancements in medicinal acquaintance, diagnosing Eagle's Syndrome precisely remains a challenge. The rarity of the

condition contributes to its under diagnosis or misdiagnosis, potentially leading to needless treatments or prolonged pain for affected individuals[3]. In modern time, a growing body of research has focused on refining diagnostic criteria and exploring various treatment options, highlighting the evolving understanding of this syndrome's clinical significance. Prevalence data for Eagle's Syndrome are limited due to its rarity, but available epidemiological studies suggest that its occurrence is higher than initially presumed[4]. The prevalence varies across different populations, necessitating a global perspective to grasp the full impact of this condition. By establishing a solid foundation through historical context, prevalence information, and acknowledging the diagnostic challenges, this study aims to emphasize the importance of recognizing and understanding Eagle's Syndrome. Such perceptiveness is crucial not only for precise diagnosis but also for devising effectual management strategies and

humanizing the eminence of life for individuals affected by this circumstance.

RESEARCH WORK AND METHOD

In the context of clinical paper publishing, the case of Mr. Chaudhary, a 30-year-old male, serves as a noteworthy illustration of Eagle's Syndrome. Mr. Chaudhary's primary concern upon presentation to the Clinic was the presence of persistent pain localized in the upper posterior region, neck, and ear. Initial physical examination did not reveal any remarkable findings, and his third molars appeared to be intact. Given the persistence and nature of his symptoms, the decision was made to pursue a more comprehensive diagnostic approach, leading to an Orthopantomogram (OPG).

CLINICAL PRESENTATION

- **Throat Pain:** Patients often report chronic, sharp throat pain, exacerbated by swallowing or speaking
- **Neck Pain:** Dull or sharp neck pain that may radiate to the jaw and ear.
- **Ear Symptoms:** Ear pain and tinnitus are common due to the proximity of the styloid process to the ear structures.
- **Dysphagia:** Difficulty swallowing due to pain and discomfort.

MULTIDISCIPLINARY COLLABORATION

- **ENT Specialists:** Expertise in diagnosing and managing disorders of the ear, nose, and throat.
- **Radiologists:** Interpretation of imaging findings for accurate diagnosis.
- **Anesthesiologists:** Collaborate for precise corticosteroid injections.

After carefully reviewing the OPG photographs and comparing them to Mr. Chaudhary's comprehensive medical records, a significant revelation was uncovered. The imaging study revealed an enlarged right styloid process and calcification of the left Stylohyoid ligament. Given the severity of Mr. Chaudhary's symptoms, the significance of these radiological findings became evident. These included both acute and chronic throat pain, neck pain and discomfort, ear difficulties (including pain and ringing in the ears), and noticeable difficulty swallowing. The symptoms fit perfectly into the well-known pattern associated with Eagle's Syndrome. This case highlights the difficulty in detecting and treating Eagle's Syndrome. It also emphasizes the need of a multidisciplinary approach to properly managing this condition. The involvement of doctors from several medical specialties was critical to the success of this attempt. Otolaryngologists were crucial in the disease's identification and treatment because of their knowledge in ENT difficulties. The interpretation of imaging findings by radiologists was critical for giving independent confirmation of the diagnosis. Professionals in the area of pain management were

also contacted to find the most effective treatment approaches.

RESULTS

In the collaborative management of Eagle's Syndrome, the patient's journey was marked by a crucial referral to the Otolaryngology Department (ENT) following a thorough evaluation[5]. In the interim period, prior to the specialized consultation, symptomatic relief for pain was deemed essential. Consequently, the patient was prescribed non-steroidal anti-inflammatory drugs (NSAIDs) as a part of the conservative treatment approach. NSAIDs, including drugs such as ibuprofen and naproxen[6], were administered to address the patient's acute pain and discomfort associated with Eagle's Syndrome. These medications are well-known for their anti-inflammatory and analgesic properties, which were mainly pertinent in this case to alleviate symptoms such as throat pain, neck pain, and ear discomfort. NSAIDs work by plummeting inflammation and inhibiting pain signals, consequently providing relief from the distressing symptoms experienced by the patient, however detailed medical history along with allergies and drug interactions needs to be taken into consideration before prescribing NSAIDs. "The recommendation of NSAIDs in the interim period between the initial evaluation and the specialized ENT consultation aimed at ensuring the patient's comfort and well-being. It forms an integral part of the conservative management strategy employed in cases of Eagle's Syndrome, offering symptomatic relief while additional diagnostic and treatment decisions are made. This careful and patient-centered approach highlights the importance of addressing the immediate needs of individuals with Eagle's Syndrome, ultimately contributing to their overall quality of life as part of a comprehensive healthcare plan.

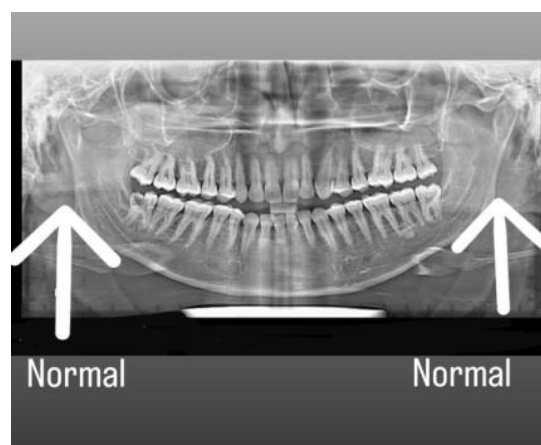


Figure 1: Comparison OPG of the patient with normal styloid process and non calcified Stylohyoid ligament.

Image source: Personal Clinical case

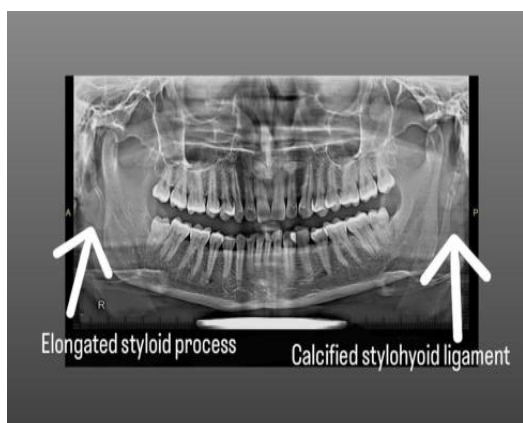


Figure 2: Patients X-ray with Eagles Syndrome
Image source: Personal Clinical case

CONCLUSION

It can be concluded that accurate diagnosis and tailored therapeutic regimens play a crucial role in managing Eagle's Syndrome. The results indicate that multidisciplinary teams have shown efficacy in investigating and managing this particular ailment. Furthermore, we emphasize potential avenues for future study that might potentially contribute to the advancement of diagnostic tools and treatment procedures. The need of disseminating this information across the medical community in order to improve patient care and outcomes is emphasized in the final section. The comprehensive research conducted by Dr. Rakshit Dalal sheds new light on Eagle's Syndrome, providing valuable insights into the complex condition and its therapeutic approaches. The present research, characterized by its use of diverse methodologies and the involvement of subject matter experts, serves as an indispensable asset for medical professionals who are confronted with the challenges posed by this complex ailment.

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