SYMPTOMATOLOGY

TMJ pain indicating cardiac disease

BACKGROUND

Myocardial infarction (MI) can be associated with a widely varying symptomatology. The most common symptoms are chest, shoulder, abdominal, upper extremity, and facial or jaw pain. Craniofacial involvement is likely related to afferent vagus nerve fibers transmitting nociceptive stimulation of the cervical neuron cells. A case involving a man with TMJ pain and dysfunction that turned out to be symptomatic of an MI was reported.

CASE REPORT

Man, 28, an active duty US Army soldier, reported to the oral and maxillofacial surgery (OMS) department to be examined for TMJ dysfunction and pain. He had left TMJ pain 3 months earlier and came to his dentist for help. The pain was worse when he exercised, especially heavy resistance training, but manifested sporadically. It radiated to his left mandibular and preauricular areas.

The dentist found no abnormalities in the patient's blood pressure, heart rate, respiratory rate, or temperature. The dental examination revealed a maximal incisal opening exceeding 45 mm without pain, deviation, or crepitus and with no restriction on motion. A hard night guard was fabricated and the patient was instructed in muscular physical therapy in the belief that the pain was myalgic and possibly related to bruxism. He was then referred to the OMS for further assessment.

A week before his evaluation, the patient collapsed while running during routine Army physical fitness training. He went into cardiac arrest, was defibrillated twice, and was brought to the emergency room. He eventually had a 1-vessel coronary artery bypass graft to address the 80% occlusion of his left anterior descending artery.

Three months after his cardiac arrest, the patient returned for evaluation. He reported immediate resolution of his jaw and face pain after the cardiac event, with no return since then. His oral and TMJ assessment revealed no significant findings, no evidence of functional restoration of movement, and no myalgic pain or bruxism.

DISCUSSION

MI occurs when the supply of oxygenated blood to the cardiac tissue is insufficient, leading to ischemia and the death of cardiac cells. Facial pain has been linked to ischemic heart disease, but evidence is lacking concerning the association of heart disease and other jaw problems.

Clinical Significance

This case reminds oral health care practitioners that, although most of the situations they face can be explained by odontogenic mechanisms, it's possible that a patient could have oral or facial pain related to nonodontogenic causes. In addition, even young, physically fit and active individuals can suffer cardiac disease. Dentists need to be vigilant about including in their differential diagnosis the possibility of uncommon causes being the culprit producing oral or facial pain.

Jenzer AC, Jackson H, Berry-Cabán CS: Temporomandibular joint pain presentation of myocardial ischemia. *J Oral Maxillofac Surg* 76:e1-2317.e2, 2018

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TELEDENTISTRY

Using teledentistry screening for advantaged children

BACKGROUND

Australia has experienced significant progress in improving oral health among its citizens, especially in reducing caries among children. The components of this progress include greater fluoride exposure and the school dental services (SDS) program. Many children who come from advantaged groups and are regularly seen by dental professionals are free of dental disease. In contrast, children from