

among the dentists practicing at the University of Florida to observe the influence of the patients' medical and dental histories on the differential radiologic interpretation.

Objective(s): The aim of this study was to observe the influence of the medical and dental histories on radiologic interpretation, and the variation depending on the dental specialty and the dentist's years of experience; and to encourage the dental practitioner to follow a systematic diagnostic strategy to avoid bias caused by the patient's medical and dental histories during radiologic interpretation.

Study Design: Dentists practicing at the University of Florida College of Dentistry were randomly divided into 4 equal groups of equal number. A survey email was sent to these groups, containing a case presentation with a pantomograph, intraoral photographs, and a medical history. The medical history was intentionally changed in each group to observe if this influenced the answers chosen by the dentists.

Results: A percentile-based descriptive analysis and a χ^2 analysis demonstrated that the majority of the participating dentists were biased by the medical and dental histories provided. A correlation analysis revealed a weak relationship between the answers chosen by the participating dentists and their dental specialty and years of experience.

Discussion/Conclusions: Knowledge of oral and maxillofacial radiology and accurate medical and dental histories are indispensable for an appropriate radiologic interpretation. However, to avoid bias from the medical and dental histories during radiologic interpretation, the dentist should strategically do the radiologic interpretation first, correlate with clinical findings, come up with potential differential interpretations, and finally correlate the medical history with the interpretation to establish the final diagnosis.

Acknowledgments

Dr. Ruprecht

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INTRAOSSEOUS LIPOMA OF THE MANDIBLE. S.C. LIN, H.H. SUN, C.M. PARK. HIGHLAND HOSPITAL, UNIVERSITY OF THE PACIFIC, SAN FRANCISCO, CA

Background: Intraosseous lipoma (IL) is an uncommon, benign lesion of the bones, making up approximately 0.1% of all primary osseous tumors. Presentation within the jaws remains particularly rare, with no more than 20 cases of mandibular intraosseous lipoma (MIL) documented within the English language literature. Its presentation is often mistaken for other entities,

such as anterior Stafne bone defect, traumatic bone cavity, keratocystic odontogenic tumor, adenomatoid odontogenic tumor, and glandular odontogenic cyst. MIL has been documented with variable signs and symptoms and locations, but manifestations in the anterior mandible are especially uncommon.

Discussion/Conclusions: A 33-year-old Hispanic female presented with an incidental finding of a well-defined, intraosseous unilocular radiolucent lesion in the right anterior mandible that was not visible on previous radiographs. The lesion measured 30 × 20 mm, without cortical expansion, and was located apical to teeth #25, #26, and #27, which were asymptomatic. The lesion was enucleated, and the specimen was histologically confirmed to be MIL.

This uncommon case of MIL has helped to better describe the features of this rare entity. The medial border of this lesion closely approximated the symphyseal midline, even when the lesion approaches the anterior mandible in only about 20% of described cases. The lesion also presented in the fourth decade of life, below the typical age of the fifth and sixth decades. Features of the current case have not been previously reported, given the small number of cases documented in the literature. Although MIL has a mild behavior and does not require aggressive surgical management, this case illustrates that it may mimic other diseases, given its location in the anterior mandible in a younger patient, thus hindering an accurate diagnosis.

Acknowledgments

The authors wish to thank Lee J. Slater, DDS, MS (Staff Pathologist Scripps Oral Pathology Service, San Diego, CA) for his assistance with histopathologic evaluation.

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KENNY-CAFFEY SYNDROME: A CASE REPORT AND A REVIEW OF THE LITERATURE. J. BUKHARI, M. MAHDIAN, D. COLOSI. STONY BROOK SCHOOL OF DENTAL MEDICINE, STONY BROOK, NY

Background: Kenny-Caffey syndrome (KCS) is a rare inherited disorder, with only 65 cases reported between 1966 and 2012, almost exclusively in Middle Eastern populations. The syndrome is characterized by a multitude of signs and symptoms, including severe growth retardation, hypocalcemia associated with hypoparathyroidism, skeletal and facial deformities, thickened cortices of long bones, and medullary stenosis. In addition to skeletal and endocrine abnormalities, dental and maxillofacial anomalies are common in KCS, with features including, but not limited to, micrognathia, generalized hypodontia, delayed eruption, dental caries, and gingivitis. Management of patients presenting with this syndrome requires a multidisciplinary approach from medical and dental personnel.

Discussion/Conclusions: We report a case of a 32-year-old female who presented to Stony Brook School of Dental Medicine for screening, with a request for implants. Panoramic radiography revealed numerous features, including hypodontia,

micrognathia, stunted roots, and multiple carious lesions. In addition to presenting a thorough clinical and dental profile of this case, we intend to conduct a literature review on this rare condition and compare the findings from our case with those reported in the literature and examine the treatment options that have been published for such cases.

Acknowledgments

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LAMINAR MORPHOLOGY OF THE HEADS OF THE MASSETER: IS THERE VARIATION?

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Background: Two- and 3-dimensional cadaveric studies have established that the masseter muscle (MM) is composed of a superficial head (SH) and a deep head (DH). The SH and DH are thought to take part in separate functions, including elevation, protrusion, retrusion, and ipsilateral excursion of the mandible. It has been proposed that the heads of the MM have a laminar arrangement. However, the precise morphology of the SH and DH has not been previously compared and studied in vivo using ultrasound. Comparison of the morphology of the SH and DH could suggest an anatomic basis for the differences in functions between the 2 heads of the MM.

Objective(s): The aim of this study was to investigate and compare the in vivo morphology of the SH and DH in relaxed asymptomatic participants. We hypothesized that the SH and DH will have different laminar morphologies.

Study Design: Ultrasound scanning of 48 MMs in 24 participants (mean age 25.8 ± 4.1 years) involved the use of a Logiq E real-time ultrasound scanner (General Electric) equipped with 2 linear probes (L10-22 and L4-12 T). Axial and coronal images were analyzed to determine the morphology of the SH compared with that of the DH.

Results: It was found that the SH and the DH had different laminar arrangements. The SH consisted of 3 or 4 laminae in 28 and 20 MMs, respectively. The DH had 2 (11 MMs), 3 (30 MMs), 4 (4 MMs), or 5 (3 MMs) laminae. The laminae of both heads had distinct aponeurotic separation, but their spatial arrangement varied. Visual inspection showed that SH laminae were oriented parallel to the long axis of the mandibular ramus, whereas the DH laminae were oriented at an acute angle toward the mandibular ramus.

Discussion/Conclusions: The orientation of the laminae of the SH and DH suggest different functions. The laminar

morphology of the SH was less varied compared with that of the DH. The more diverse laminar morphology of the DH may allow for more complex functional partitioning relative to the SH.

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LOCALIZED MYOSITIS OSSIFICANS TRAUMATICA: CASE SERIES. M. ALMAHNDR, A. RUPRECHT, D. KASHTWARI. UNIVERSITY OF FLORIDA, GAINESVILLE, FL

Background: Myositis ossificans traumatica (MOT) is defined as deposition of bone or ossification in muscles and/or soft tissues with a history of trauma or hematoma. It is uncommon to see MOT in the head and neck region, including the masticatory muscles. We report a series of 3 cases with calcifications in the temporalis muscles, as seen on cone beam computed tomography (CBCT) images.

Clinical and Radiographic Findings: Case 1: A 97-year-old male patient with osteonecrosis of the mandible. CBCT revealed several incidental linear radiopaque masses in the 2 temporal fossae, representing calcifications in the temporalis muscles. The appearance was consistent with localized MOT.

Case 2: A 52-year-old female patient with a swelling of the anterior maxilla and history of Le Fort I osteotomy. CBCT showed several incidental linear radiopaque masses in the region of the temporalis muscles bilaterally. These calcifications were not seen in the CBCT image made 6 years previously. The appearance was consistent with localized MOT.

Case 3: An 80-year-old male with right maxillary alveolar ridge squamous cell carcinoma who underwent right maxillectomy and neck dissection. His CBCT image displayed several incidental linear radiopaque masses in the right temporal area. These calcifications appeared to be related to the surgical procedure performed near this area. The appearance was consistent with localized MOT.

Discussion/ Conclusions: MOT involving muscles of mastication mostly affects the masseter muscle, whereas the temporalis muscle is the least affected. Removal of the calcification is indicated only if it occurs near a joint in the origin or the insertion of a muscle. The maxillofacial radiologist should carefully investigate the areas near the surgical procedure because it might cause contusion/trauma to nearby structures, which can lead to calcification of the muscles.

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