RICHMOND
ENDODONTIC CENTRE

GO FOR CO

JUL
AUG
2017

Periapical radiopacities are much less common than PA radiolucencies. Condensing osteitis (CO), also known as focal sclerosing osteomyelitis, is the most common radiopaque lesion of the jaws (10% of the population); especially the first mandibular molar of women. It is a diffuse radiopaque lesion at the apices of roots or the base of an extraction site. A central radiolucent area is not necessarily concomitant for CO. The common postulation is that CO is a localised bony reaction to 'wall off' a long-standing, low-grade inflammatory irritant emanating from the pulp space. Histological studies confirm dense, compact bone is replacing marrow space and cancellous bone.

CO need not be associated with clinical symptoms; it is often found by happenstance. Nevertheless it is a distinct response to pulp damage be it inflammation or necrosis, or the existence of viable bacterial colonies in the canal system of an endodontically treated tooth. Pulp testing, clinical and radiographic examinations, as well as a review of the medical status of the patient is required for confirmation of the diagnosis of CO. One would expect the pulp of a tooth with CO to not respond normally to vitality tests. If the pulp vitality tests are inconclusive, repeat them and consider further radiographic evaluation (i.e. angled PA's, PAN, CBCT, etc…) as well as a second opinion from an endodontist (i.e. me).

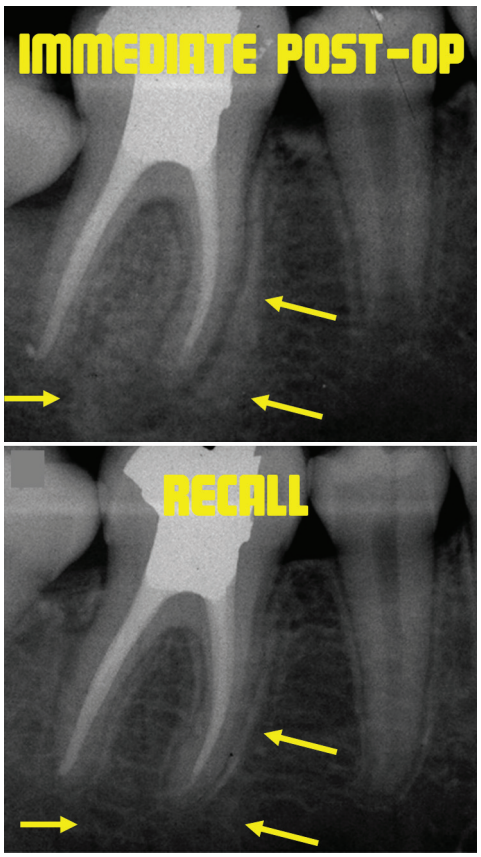
Other possible explanations for dense bone proximal to root apices include, but are not limited, to: idiopathic osteosclerosis, odontoma, fibrous dysplasia, calcifying odontogenic cyst, ossifying fibroma, cementoblastoma, or hyperostosis secondary to Gardner's Syndrome or other systemic ailments. Dentist are immensely more efficient at spotting an apical radiolucency than a radiopacity. Do not let a relative unfamiliarity with radiopaque lesions and a lack of clinical symptoms justify a 'wait and see' approach. To paraphrase an oft repeated dental quote: 'When in doubt, check it out'.

Since CO is a bony response to an odontogenic irritant, full or at least partial resolution of the radiopacity is expected to eventually be evident after its removal (i.e. RCT or extraction). The images above are of a case from the literature which demonstrates full resolution of CO beautifully. The Immediate Post-Op PA demonstrates profound CO about the mesial root of tooth 46. Pre-operative pulp vitality tests confirmed this asymptomatic and functional tooth had a necrotic pulp with CO. Endodontic treatment successfully eliminated the irritant and subsequent resolution of the radiopacity is evident on the re-evaluation periapical radiograph.

Radiopaque lesions are rare but CO is the most common of the lot. It behooves clinicians to address it as efficiently and effectively as they would a radiolucent lesion. There are no benefits to leaving CO untreated as spontaneous resolution is not possible whilst the pathological state is active. Endodontic treatment is a conservative treatment that will resolve CO and allow teeth to remain stable and functional for the long-term.

Regards,

Joel N. Fransen
BSc(OT), DMD, FRCD(C)
Certified Specialist in Endodontics



Richmond Endodontic Centre
Dr. Joel N. Fransen

110-11300 No.5 Rd
Richmond, BC V7A 5J7
office@endodonticcentre.com
T 604.274.3499
F 604.274.3477

Office Hours
8am to 5pm - Monday to Friday
Extended hours are also available

The Richmond Endodontic Centre Boardroom is open; it is available for meetings, lectures, and study clubs. Please come by and have a look at our new presentation centre!

RICHMOND
ENDODONTIC CENTRE
BOARDROOM