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Professional Liability in Dental Radiology

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Introduction

In radiology, as in every other medical speciality, the daily practice includes an intrinsic risk of human errors with potentially dangerous consequences to the patient. In particular, interpretation of medical images request skill and expertise obtained after a long training because of the difficulty to recognize the presence of pathological aspects, so the most common cause for a medical malpractice suit against radiologist is error in the diagnostic process. Anyway, lawsuits in radiology may also result from word errors in reports, especially for inappropriate wording, unsuitable terminology and/or transcription mistakes. It's noteworthy that even an error limited to a single word may significantly alter a report, resulting in a patient mismanagement [1-3]. In the daily practice of dental radiology reporting, the radiologist commonly neglects to describe in detail the pathological dental nature and/or previous dental treatment, most likely for the high specificity of the clinical orodental aspects. A direct consequence of this situation has been the necessity to establish specialties of dental and maxillofacial radiology, where the goals were to train oral radiologists capable to provide an adequate support to the clinicians. About the dentist, it is important to remember that radiology is an essential complementary activity, the core of the diagnostic assessment of the patient. Dentistry is one of the health professions that have the responsibility for decision-making and interpreting radiographic images all that aimed at the next therapeutic choice. So, the dentist is familiar with radiographs, an invaluable tool for proper patient care providing critical information for the diagnosis of dental disease, i.e., caries, periodontal bone loss, periapical pathosis, and other oral conditions; moreover, many dental treatments are completely dependent on intra and/or extra-oral radiology and impossible to adequately perform without it, i.e., endodontics and implant surgery [4-6]. In 2015, the Author published a case of professional responsibility shared between radiologist and dentist, when a wrong tooth was extracted as a result of an error in the radiology report [7]. A 25 year old man, affected by dental pain at the left inferior dental arch, was subjected to an x-ray orthopantomogram. In that case, on one side the report of radiologist was unexpectedly very punctilious in the description of the presence of endodontic treatments, but he attributed dental periapical pathosis to a wrong tooth, on the other side it was incomplete because he failed to recognize caries disease of the omolateral wisdom tooth that was the real cause of

patient's pain. The dentist, basing his therapeutic choice on the radiologist's error, performed the extraction of a healthy tooth, free of both periapical pathosis and carious disease. So, the patient underwent the erroneous extraction of a molar as a result of negligent conduct of both the radiologist, who attributed the presence of periapical pathology to the wrong tooth, and the dentist, who made the extraction of a tooth based solely on the report of the radiologist. The radiologist committed obviously a simple typographical error; however, the fact that the damage was caused materially by the dentist is not able to exclude the existence of a causal link between the harmful event and his fault. On the other hand, if the error of the radiologist is indisputable, the dentist cannot invoke the radiologic error in reporting a recognizable lesion as his justification: the typographical error committed by the radiologist would be recognized immediately if only the dentist had viewed the radiograph before performing the extraction and an adequate clinical assessment would showed the wisdom molar affected by a large caries, responsible of the symptoms complained by the patient. The position of the dentist is aggravated by the fact that he should have performed diagnostic and clinical investigations to support the effective indication for the extraction of a tooth affected by a periapical lesion, since the first choice would have been its endodontic retreatment [8]. The execution of an irreversible treatment, the extraction, without taking into account the possibility of a more viable conservative alternative, makes the dentist's behaviour more severe than the radiologist.

In conclusion, although the two doctors are both responsible, the special professional competence of the dentist, both clinical and radiological, leads to evaluate a higher degree of liability for him.

References

1. Whang JS, Baker SR, Patel R, Luk L, Castro A (2013) The causes of medical malpractice suits against radiologists in the United States. *Radiology* 266: 548-554.
2. Busardò FP, Frati P, Santurro A, Zaami S, Fineschi V (2015) Errors and malpractice lawsuits in radiology: What the radiologist needs to know. *Radiol med* 120: 779-784.
3. Babu AS, Brooks M (2015) The malpractice liability of radiology reports: minimizing the risk. *Radiographics* 35: 547-554.
4. Fresa R, Zangari F (2000) *La cura del paziente in odontoiatria. Terapie e profili di responsabilità* Torino: CG Edizioni Medico Scientifiche.
5. Montanari Vergallo G, Frati P, Mele A, Di Luca NM (2007) L'interazione tra radiologo ed odontoiatra nell'ambito della responsabilità professionale. *Jura Medica* 20: 235-259.
6. Wright B (2012) Contemporary medico-legal dental radiology. *Aust Dent J* 57: 9-15.
7. Zangari F (2015) Responsabilità del radiologo e dell'odontoiatra: caso clinico e riflessioni medico-legali. *Dental Cadmos* 83: 100-106.
8. Paik S, Sechrist C, Torabinejad M (2004) Levels of evidence for the outcome of endodontic retreatment. *J Endod* 30: 745-750.