

Orthodontic records: new aspects of an old concern

Robert Willer Farinazzo Vitral*, Marcio José da Silva Campos**, Cleverson Raymundo Sbarzi Guedes***

In the last few years, there has been a growing concern about the amount of X-rays to which patients are exposed during radiographic examinations requested by the dentists responsible for their treatments. This concern has been identified in Reference Centers of Orthodontics all over the world. Evidence of that is an Editorial published in 2008,¹ in which the Editor of the American Journal of Orthodontics and Dentofacial Orthopedics (AJODO), David Turpin, analyzed the guidelines of the British Orthodontic Society² (BOS) for radiography in Orthodontics. In its general considerations, BOS basically reminds dentists that no safe level of exposure to radiation has been established and recommends a careful analysis of risks and benefits for the patient's health before each radiograph is requested and stresses that radiographs should be indicated only when there is an appropriate clinical justification. Therefore, according to the BOS, no indication or need is justified in the following orthodontic cases: routine radiographs obtained before clinical examination; set of routine radiographs for all orthodontic patients; full pretreatment periapical examination; cephalometric profile radiographs to predict facial growth; hand and wrist radiographs to predict

growth spurt; routine radiographs of the temporomandibular joints to evaluate dysfunctions; radiographs for medicolegal purposes; end-of-treatment radiographs whose sole objective is professional evaluation or clinical presentation; and cone-beam computed tomography (CBCT) as a routine examination.

Greater attention has been paid to exposure to radiation as CBCT became popular and the new focus of concern in dentistry. In another editorial in 2010,³ Turpin described a project of the European Atomic Energy Community, the SEDENTEXCT, which established temporary norms for the indication of X-ray examinations in dentistry while key data have not been fully gathered for the scientific development of guidelines for the clinical use of CBCT. In the USA, however, the American Association of Orthodontists and the American Association of Maxillofacial Radiology joined efforts to prepare a reference document⁴ to guide the choice of which imaging diagnostic technique is the most useful in specific orthodontic conditions, which is justified by the wide variety of imaging modalities available in orthodontics, from cephalometric radiographs to CBCT. Turpin recommended that, while those documents

How to cite this article: Vitral RWF, Campos MJS, Guedes CRS. What's new in Dentistry — Orthodontic records: new aspects of an old concern. *Dental Press J Orthod.* 2011 July-Aug;16(4):15-8.

» The authors report no commercial, proprietary, or financial interest in the products or companies described in this article.

* MSc and PhD, Orthodontics, Federal University of Rio de Janeiro, Brazil. Associate Professor, Federal University of Juiz de Fora (UFJF), Juiz de Fora, Brazil. Head, Graduate Program in Health Science, UFJF, Juiz de Fora, Brazil. Head, Graduate Program in Orthodontics, UFJF, Juiz de Fora, Brazil.

** Specialist in Collective Health and Orthodontics, MSc and PhD, Health Sciences, UFJF, Juiz de Fora, Brazil. Visiting Professor, Graduate Program in Orthodontics, UFJF, Juiz de Fora, Brazil.

*** MSc in Law, State and Citizenship, University Gama Filho of Rio de Janeiro. PhD in Law and Social Sciences, Universidad del Museo Social Argentino, Buenos Aires/Argentina. Associate Professor, UFJF, Juiz de Fora, Brazil.

have not been completed, orthodontists should use CBCT carefully and always ask themselves whether the clinical problem may be solved by using conventional radiographs.

In Brazil, no specific recommendations have been made about the use of radiographic examinations in orthodontics, and no movement from professional associations or governmental offices has been made to create them. In our country, a set of initial and final examinations are usually obtained,⁵ as well as reexamination studies requested when the dentist sees the need to evaluate the treatment already completed to define the next steps.

A legal concern is associated with the clinical interest in making a diagnosis, planning and evaluating treatment that justify the requests of radiographs. Orthodontics is an activity whose duty, in its nature of provision of services, is to achieve results.⁶ Orthodontists are obligated to achieve a certain useful result by means of their activity, and the records at the end of treatment are irrefutable proof of proper clinical conduct. Moreover, during civil action against an orthodontist, the existence of the alleged damage to the patient has to be proven to characterize a causal connection (cause and effect relation) to the professional conduct, which may or may not be proven by the records collected during treatment.⁷ In turn, paragraph 6 of the Brazilian Consumer Protection Code⁸ allows the trier of facts to shift the burden of proof and to determine that the orthodontist has to prove no culpable neglect, and it is the orthodontist that will sustain damages in case these records are not available for forensic examination.

Differently from usual practices in the United States and European countries, in Brazil the Federal Prosecution Service has assumed the position of professional associations in those countries and has issued recommendations about indications and contraindications for radiographic examinations. The news article *Indiscriminate use of X-rays may lead to investigations of ethical violations*, published in the journal of the Regional

Concil of Dentists of the State of Minas Gerais (CROMG),⁹ describes how this takes place when private health care organizations are involved.

POSITION AND RECOMMENDATIONS OF THE FEDERAL PROSECUTION SERVICE

The 1988 Brazilian Constitution established that access to health care should be universal. After that, the Brazilian Unified Health System was created, and the operations of private health insurance companies were defined by law. One of the most significant features of the democratic Brazilian Constitution was to facilitate the access to the Judiciary system for all citizens, so that all individual and collective disputes have the opportunity to be taken to court. Federal Prosecutors, the best known representatives of citizens in this branch of the Judiciary System, gained the responsibility to protect, within the range of their legal obligations, the rights of users of the public and private health care systems.¹⁰ Along this line, several specialized Federal Prosecution Services have been created to protect health care rights.

In this context, the Health Care Federal Prosecution Service often issues recommendations to health care organizations, doctors or dentists to avoid all types of abuse. The Federal Council of Dentistry itself has issued Resolution 102/2010,¹¹ whose purpose was to fight the indiscriminate use of X-rays for exclusively or primarily administrative purposes or to replace forensic, auditing or fact-finding examinations easily performed using other means and less invasive or less damaging to the health of these patients. In a similar sense, it expressed its concern about the Directive 453/98 issued by the Brazilian National Health Surveillance Agency (ANVISA).¹²

In the same direction, Recommendation 05/2010¹³ was issued by the State Health Care Prosecution Service in Belo Horizonte, which, under the cloak of its legal and constitutional responsibilities and with the purpose to directly protect the health of insurance policy holders, is-

sued recommendations to avoid the abusive use of X-ray examinations in several dental procedures and to deal with two problems: (a) the abusive demands of health care insurance companies used as a means of controlling dental treatments; and (b) the abusive use of X-ray examinations that are potentially harmful to the user's health. These measures should be expected from the Prosecutors Service, particularly because they are explicitly described in the National Ministerial Plan of Action for Public Health.¹⁴

Clearly, such recommendation raises concerns among dentists working in the various dental specialties because abusive use cannot be taken to be the general rule among dentists and because of the justified fear of possible investigations due to ethical violations or, worse, of facing prosecution by the Prosecutors' office or cases filed by individual patients in the Court of Law.

Because of their specialization and expertise, dentists cannot be at the mercy of multiple recommendations that may hinder their actions. They should also not need to refrain from monitoring treatment using any examinations as a means of escaping civil, administrative or even criminal liabilities.¹⁵

On the other hand, the Federal Prosecution Service should not move away from its legal obligation of protecting health and issuing recommendations when their intervention, whether preventive or not, is necessary and indispensable in accordance with Section 67, Subsection VI of Supplementary Law 34/94-MG.¹⁶

As health care professionals, dentists should guide their actions according to responsibility, ethics and justifiable interventions (by themselves or others) to achieve the success of the treatment initially planned or later adjusted. If there is any need to control the treatment using complementary tests, either X-rays or others, this decision should be based on the nobleness of the dentist-patient relationship and produce accurate records to avoid the strains of a conflict that may end up in Court.

However, this will never have the power to rule out the possibility of a patient (citizen) going to Court through its several "entrance doors", because the access to the Judiciary is a fundamental right of all citizens in Brazil.¹⁷

CONCLUSION

This may be the moment to create, in Orthodontists Associations, committees capable of issuing recommendations or guidelines, based on scientific and legal principles, to their members and diplomates to use ionizing radiation not only in routine clinical procedures, but also in the design of studies based on imaging diagnoses. Associations should also approach other organizations and institutions, such as the Federal Prosecution Service, to plan joint preventive efforts to reach common aims, such as: provide specialized technical guidelines to the actions of the Federal Prosecution Service; not to inhibit professional actions; and to be effective in inhibiting the abusive use of X-rays examinations.

REFERENCES

1. Turpin DL. British Orthodontic Society revises guidelines for clinical radiography. *Am J Orthod Dentofacial Orthop*. 2008 Nov;134(5):597-8.
2. Provisional guidelines on CBCT for dental and maxillofacial radiology. [Cited 2011 Apr 1st]. Available from: http://www.sedentext.eu/system/files/sedentext_project_provisional_guidelines.pdf.
3. Turpin DL. Clinical guidelines and the use of cone-beam computed tomography. *Am J Orthod Dentofacial Orthop*. 2010 July;138(1):1-2.
4. AAO and AAOMR to produce joint position paper on imaging. [Cited 2011 Apr 1st]. Available from: <http://www.aaomembers.org/MyPractice/Technology/AAO-Imaging-Initiative.cfm>.
5. Barroso MG, Vedovello Filho M, Vedovello SAS, Valdrihi HC, Kuramae M, Vaz V. Responsabilidade civil do ortodontista após a terapia ortodôntica. *RGO: Rev Gaúcha Odontol*. 2008;56(1):67-73.
6. Oliveira MLL. Responsabilidade civil odontológica. Belo Horizonte: Del Rey; 2000.
7. Souza NTC. Odontologia e responsabilidade civil. *Bol Jurid [Internet]*. 2006. [Acesso 2011 Mar 29];4(181). Disponível em: <http://www.boletimjuridico.com.br/doutrina/texto.asp?id=1334>.
8. Brasil. Lei nº. 8078, de 11 de setembro de 1990. Código de Defesa do Consumidor. *Diário Oficial da União*. 1990 set 12. [Acesso 2011 Mar 31]. Disponível em: http://www.planalto.gov.br/ccivil_03/Leis/L8078.htm.
9. Uso indiscriminado dos Raios-X pode levar à instauração de processos éticos. *Jornal do CROMG*. 2011 fev-mar:XXVIII(201):3-4.
10. Mazzilli HN. A defesa dos interesses difusos e coletivos em Juízo. 22ª ed. São Paulo: Saraiva; 2009.
11. Conselho Federal de Odontologia (Brasil). Resolução nº. 102, de 12 de maio de 2010. Proíbe o uso indiscriminado de Raio X. *Diário Oficial da União*. 2010 jun 2.
12. Agência Nacional de Vigilância Sanitária (Brasil). Portaria no. 453, de 01 de junho de 1998. *Diário Oficial da União*. 1998 jun 2.
13. Brasil. Inquérito Civil nº. 0024.06.000816-6 – SRU/MPMG. Promotoria de Justiça de Defesa da Saúde de Belo Horizonte/MG. Recomendação nº. 05, de 17 de novembro de 2010.
14. Plano Nacional de Atuação Ministerial em Saúde Pública (Manual de Atuação). [Acesso 2011 Mar 31]. Disponível em: <http://www.mp.mg.gov.br/portal/public/interno/repositorio/id/23377>.
15. Oliveira E. Deontologia, erro médico e direito penal. Rio de Janeiro: Forense; 1998.
16. Minas Gerais. Lei Orgânica do Ministério Público de Minas Gerais. (Lei Complementar 34/94). Centro de Estudos e Aperfeiçoamento Funcional do Ministério Público de Minas Gerais. Organizador: Clóvis Tatagiba. Belo Horizonte; 2008.
17. Brasil. Constituição (1988). Constituição da República Federativa do Brasil. Brasília (DF): Senado Federal; 1988. [Acesso 2011 Mar 31]. Disponível em: http://www.planalto.gov.br/ccivil_03/Constituicao/Constituicao.htm.

Submitted: April 18, 2011.
Revised and accepted: June 7, 2011.

Contact address

Robert Willer Farinazzo Vitral
Av. Rio Branco 2595/1604
CEP: 36.010 907 – Juiz de Fora / MG, Brazil
E-mail: robertvitral@acessa.com