



UNIVERSIDADE FEDERAL DE UBERLÂNDIA
FACULDADE DE ODONTOLOGIA



PAOLA CRISTINA RESENDE

Riga - Fede ulcer and natal tooth: case report

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RIGA-FEDE ULCER AND NATAL TOOTH: CASE REPORT

Trabalho de conclusão de curso apresentado à Faculdade de Odontologia da Universidade Federal de Uberlândia, como requisito parcial para obtenção do título de Cirurgiã-dentista (graduada em Odontologia).

Orientadora: Prof^a. Dr^a. Alessandra Maia de Castro Prado

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SERVIÇO PÚBLICO FEDERAL
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 GRADUAÇÃO EM ODONTOLOGIA
 TRABALHO DE CONCLUSÃO DE CURSO

ATA DA COMISSÃO JULGADORA DA DEFESA DE TRABALHO DE CONCLUSÃO DE CURSO DO (A) DISCENTE **Paola Cristina Resende** DA FACULDADE DE ODONTOLOGIA DA UNIVERSIDADE FEDERAL DE UBERLÂNDIA.

No dia **05 de novembro de 2018**, reuniu-se a Comissão Julgadora aprovada pelo Colegiado de Graduação da Faculdade de Odontologia da Universidade Federal de Uberlândia, para o julgamento do Trabalho de Conclusão de Curso apresentado pelo(a) aluno(a) **Paola Cristina Resende**, COM O TÍTULO: **"RIGA-FEDE ULCER AND NATAL TOOTH: CASE REPORT"**. O julgamento do trabalho foi realizado em sessão pública compreendendo a exposição, seguida de arguição pelos examinadores. Encerrada a arguição, cada examinador, em sessão secreta, exarou o seu parecer. A Comissão Julgadora, após análise do Trabalho, verificou que o mesmo se encontra em condições de ser incorporado ao banco de Trabalhos de Conclusão de Curso desta Faculdade. O competente diploma será expedido após cumprimento dos demais requisitos, conforme as normas da Graduação, legislação e regulamentação da UFU. Nada mais havendo a tratar foram encerrados os trabalhos e lavrada a presente ata, que após lida e achada conforme, foi assinada pela Banca Examinadora.

Uberlândia, 05 de novembro de 2018.

| | |
|---|---|
|  _____ Prof. Dr. Alessandra Maia de Castro Prado Universidade Federal de Uberlândia – UFU |  _____ Aprovado/Reprovado |
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|  _____ Ana Laura Rezende Vilela Aluna(a) de doutorado – PPGO/UFU |  _____ Aprovado/Reprovado |

DEDICATÓRIA

Dedico este trabalho a Deus e à minha família, meus símbolos de Amor e Persistência.

AGRADECIMENTOS

Nenhuma batalha é vencida sozinha. No decorrer desta luta algumas pessoas estiveram ao meu lado e percorreram este caminho como verdadeiros soldados, me dando forças em minhas perdas, vitórias e sonhos.

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Minha família, eu escolheria vocês em outras mil vidas que tivesse.

Agradeço aos meus grandes amigos os quais recebi o privilégio de conhecer durante o percurso da faculdade: Brunna C., Amanda A., Nayara A., Francielle P. Vocês foram meu símbolo de força, inspiração, confiança, lealdade e persistência. Passamos por incontáveis momentos juntas estes que serão lembrados por mim como os melhores.

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“Amigo é coisa para se guardar, do lado esquerdo do peito.”.

Milton Nascimento

Agradeço a meus primos(as) e tios: Pablo R., Pamella M., Welligton R., Sandra R., Wander J., Augusto C., Adriano V., que sempre torceram por mim!

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RESUMO

Contexto: Os dentes natais estão presentes ao nascimento e os neonatais são caracterizados como dentes que entram em erupção nos primeiros 30 dias de vida. Geralmente, os incisivos decíduos inferiores irrompem precocemente e são mais comumente identificados como dentes natais e neonatais. Na maioria dos casos, os dentes pertencem à série normal (95%) e apenas 5% são supranumerários. A frequência deste fenômeno ocorre aproximadamente de 1: 401 a 1: 3.500. Os dentes natais podem estar associados a várias dificuldades, como dor ao amamentar e recusa alimentar, enfrentados pela mãe e pela criança devido ao dente / dentes natais.

Relato de caso: Este relato de caso apresenta uma criança com presença de dente de natal associado à úlcera de Riga-Fede. A mãe relatou que a criança foi diagnosticada com anomalia congênita cardíaca e apresentava dificuldade em amamentar associada à úlcera lingual.

Conclusão: Os lactentes com dentes natais devem ser avaliados, pois estes podem apresentar mobilidade e causar úlcera de Riga-Fede além de comprometer a amamentação. Nos casos em que as crianças apresentam anomalia congênita cardíaca, maior atenção deve ser direcionada.

Palavras-chave: Úlcera de Riga-Fede; Amamentação; Dente natal.

ABSTRACT

Background: Natal teeth are present at birth and neonatal are characterized as teeth that erupt in the first 30 days of life. Generally, the lower primary incisors erupt early and they are most commonly identified as natal and neonatal teeth. In most cases, the teeth belong to the normal series (95%) and only 5% are supernumerary. The frequency of this phenomenon occurs approximately from 1: 401 to 1: 3.500. The natal teeth can be associated with various difficulties, such as pain on suckling and refusal to feed, faced by the mother and the child due to the natal tooth/teeth.

Case report: This case report presents an infant with presence of a natal tooth associated with Riga-Fede ulcer. The mother reported that infant was diagnosed with heart congenital anomaly and was presenting difficulty in breastfeeding associated with tongue ulcer.

Conclusion: Infants with natal teeth must be assessed, since these can present mobility and cause Riga-Fede ulcer and besides compromises the breastfeeding. In cases that infants present heart congenital anomaly, more careful should be taken.

Keywords: Riga-fede ulcer; Breastfeeding; Natal tooth.

INTRODUCTION

Natal teeth are elements present at birth and neonatal teeth are characterized as teeth that erupt in the first 30 days of life¹⁻⁵. Generally, the lower primary incisors erupt early and they are most commonly identified as natal and neonatal teeth. In most cases, the teeth belong to the normal series (95%) and only 5% are supernumerary¹. The frequency of this phenomenon occurs approximately from 1: 401 to 1: 3.500^{1,2}.

Although the etiology is still unknown, hormonal influences, heredity, high osteoclastic activity in the region, superficial position of the tooth germs and febrile episodes are widely discussed³. Some authors believe that the superficial position of the dental germs associated with heredity is the theory that is currently more accepted^{1,2,4}.

It is observed clinically that the natal and neonatal teeth, in general, have conventional shape and size. However, they may erupt with incomplete development, yellow-brown coloration and enamel hypoplasia^{1,2}. The gingival tissue around the dental elements may be hyperplastic, swollen and/or bleeding². Usually, radiographic examinations show compromised root formation, narrow pulp chamber and low crown radiopacity^{1,2}.

Due to incomplete root formation, natal teeth usually presents high mobility and can lead to reactive mucosal as a result of repetitive trauma of the tongue on the lower incisors, natal and neonatal teeth, which is benign, known as the Riga-Fede ulcer^{1,2,5}. Suction difficulties and impairments to breastfeeding may be present, causing irritation, lack of appetite and weight loss in the infant².

Several clinical approaches are adopted including the application of topical anesthetics, the addition of small restorative material on the local, smoothing the incisal edges, and also dental extraction⁵. Thus, the aim of this study is to address a case report of an infant with presence of natal tooth associated with Riga-Fede ulcer.

CASE REPORT

A 10-day-old female infant was referred to our Department of Pediatric Dentistry of the Faculty of Dentistry of the Federal University of Uberlândia (UFU - Minas Gerais, Brazil). During the anamnesis, the parents reported that the patient underwent cardiologic follow-up due to the presence of patent foramen ovale and suspicion of cardiac rhabdomyoma. The mother reported difficulty in breastfeeding and the presence of a tooth present since birth (natal tooth), located in the region of lower incisors associated with ulcer, in the initial phase, in the belly region of the tongue (Riga-Fede ulcer). These findings were verified in the clinical intraoral exam (figure 1).

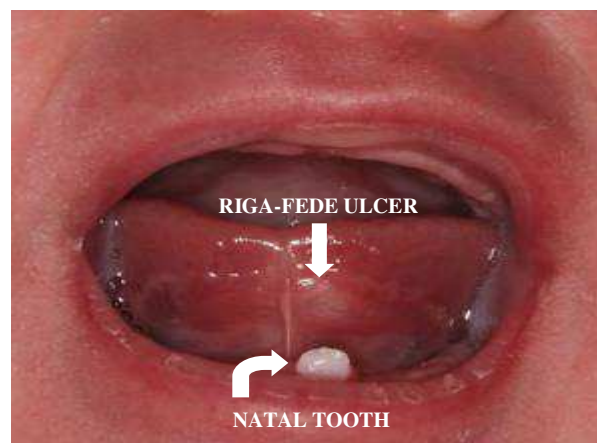


Figure 1: Presence of natal tooth and Riga-Fede ulcer on clinical examination.

Due to the high degree of mobility and the presence of the Riga-Fede ulcer, which caused discomfort during breastfeeding, the choice procedure was the dental extraction. Her cardiologist was consulted to verify the need for antibiotic prophylaxis. The polishing of the edges of the tooth was performed with the intention to minimizing damages until the return with the medical opinion.

One week after, extraction was performed. The ulcer increased in size, therewith the infant, with pain, was not adequately breastfeeding. The procedure was performed with antibiotic coverage of amoxicillin (250mg / 5ml). Local anesthesia (Alphacaine 2% ® Lidocaine with Epinephrine 1: 100,000) was used in the procedure and thus the tooth

was removed (Figure 2). The hemostasis of the region was performed and the postoperative guidelines were passed on to those responsible.



Figure 2: Infiltrative anesthesia (Alphacaine 2%® Lidocaine with Epinephrine 1:100.000).

On return of seven days, complete repair of the ulcerated area and breastfeeding occurred in a normal way. The patient remained in follow-up. Within 3 months, another deciduous tooth erupted, without interfering with breastfeeding, which still remains at six months.

DISCUSSION

As in the reports of Costacurta et al.⁵(2015) and Danelon et al.² (2017) who reported infants with neonatal and natal teeth, respectively, associated to Riga-Fede ulcer. The ulcers repaired after the extraction and the alveolar ridge of the infants healed normally^{2,5}. Although Triches et al.¹ (2018) reported one case, of healthy infant presented a natal tooth in the region of lower incisors. It was well implanted, without periodontal changes, no discomfort during breastfeeding and no ulcer so, it was decided to follow-up the case. The option to maintain such element, is important for preserving space, assisting in phonetics, chewing and aesthetics of the infant⁵.

In a retrospective study, it was observed that the position most common of natal and neonatal teeth was in the region of the lower incisors, not all of them were supernumerary. There was a high prevalence of this phenomenon in female infants^{1,3,4}, but other authors affirm that there are no differences between female and male infants².

In the cases where it is a supernumerary tooth, or even of the normal series with mobility, it is opted to perform the extraction to avoid the risk of swallowing or aspiration^{1,5}. However, surgery should be planned carefully and take into account the vitamin K deficiency of the newborn in the first days of life^{2,5}.

CONCLUSION

Infants with natal teeth must be assessed, since these can present mobility and cause Riga-Fede ulcer and besides compromises the breastfeeding. In cases that infants present heart congenital anomaly, more careful should be taken.

BULLET POINTS

1. Natal teeth are a specific condition that must be evaluated if they should be maintained or extracted;
2. Natal teeth that belong to normal series must be extracted when its associated with Riga-Fede ulcer that not repair, high mobility and when the breastfeeding is compromised;
3. The infant must be evaluated in relation to general health, since congenital anomalies can be presented and so interfere in dental procedure

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5. Palmeira MT, Carvalho MSR, Serrano FL, Oliveira LMC. Natal and neonatal teeth: diagnosis and therapeutic conduct. *Rev. Odontol. Univ. Cid. São Paulo* 2017; 29(2): 149-53.

ANEXOS

1. International Journal of Paediatric Dentistry (diretrizes)

MANUSCRIPT TYPES ACCEPTED

Original Articles: Divided into: Summary, Introduction, Material and methods, Results, Discussion, Bullet points, Acknowledgements, References, Figure legends, Tables and Figures arranged in this order. The summary should be structured using the following subheadings: Background, Hypothesis or Aim, Design, Results, and Conclusions and should be less than 200 words. A brief description, in bullet form, should be included at the end of the paper and should describe why this paper is important to paediatric dentists.

Review Articles: may be invited by the Editor.

Short Communications: should contain important, new, definitive information of sufficient significance to warrant publication. They should not be divided into different parts and summaries are not required.

Clinical Techniques: This type of publication is best suited to describe significant improvements in clinical practice such as introduction of new technology or practical approaches to recognized clinical challenges.

Brief Clinical Reports/Case Reports: Short papers not exceeding 800 words, including a maximum of three illustrations and five references may be accepted for publication if they serve to promote communication between clinicians and researchers. If the paper describes a genetic disorder, the OMIM unique six-digit number should be provided for online cross reference (Online Mendelian Inheritance in Man).

A paper submitted as a Brief Clinical/Case Report should include the following:

- a short **Introduction** (avoid lengthy reviews of literature);
- the **Case report** itself (a brief description of the patient/s, presenting condition, any special investigations and outcomes);
- a **Discussion** which should highlight specific aspects of the case(s), explain/interpret the main findings and provide a scientific appraisal of any previously reported work in the field.
- Please provide up to 3 bullet points for your manuscript under the heading: 1. Why this clinical report is important to paediatric dentists. Bullet points should be added to the end of your manuscript, before the references.

Letters to the Editor: Should be sent directly to the editor for consideration in the journal.

MANUSCRIPT FORMAT AND STRUCTURE

Language: The language of publication is English. UK and US spelling are both acceptable but the spelling must be consistent within the manuscript. The journal's preferred choice is UK spelling. Authors for whom English is a second language must have their manuscript professionally edited by an English speaking person before submission to make sure the English is of high quality. It is preferred that manuscript is professionally edited. A list of independent suppliers of editing services can be found at http://authorservices.wiley.com/bauthor/english_language.asp. All services are paid for and arranged by the author, and use of one of these services does not guarantee acceptance or preference for publication

Structure

The whole manuscript should be double-spaced, paginated, and submitted in correct English. The beginning of each paragraph should be properly marked with an indent.

Original Articles (Research Articles): should normally be divided into: Summary,

Introduction, Material and methods, Results, Discussion, Bullet points, Acknowledgements, References, Figure legends, Tables and Figures arranged in this order.

Please include a statement of author contributions, e.g. Author contributions: A.S. and K.J. conceived the ideas; K.J. and R.L.M. collected the data; R.L.M. and P.A.K. analyzed the data; and A.S. and K.J. led the writing.

Summary should be structured using the following subheadings: Background, Hypothesis or Aim, Design, Results, and Conclusions.

Introduction should be brief and end with a statement of the aim of the study or hypotheses tested. Describe and cite only the most relevant earlier studies. Avoid presentation of an extensive review of the field.

Material and methods should be clearly described and provide enough detail so that the observations can be critically evaluated and, if necessary repeated. Use section subheadings in a logical order to title each category or method. Use this order also in the results section. Authors should have considered the ethical aspects of their research and should ensure that the project was approved by an appropriate ethical committee, which should be stated. Type of statistical analysis must be described clearly and carefully.

(i) **Experimental Subjects**: Experimentation involving human subjects will only be published if such research has been conducted in full accordance with ethical principles, including the World Medical Association Declaration of Helsinki (version 2008) and the additional requirements, if any, of the country where the research has been carried out. Manuscripts must be accompanied by a statement that the experiments were undertaken with the understanding and written consent of each subject and according to the above mentioned principles. A statement regarding the fact that the study has been independently reviewed and approved by an ethical board should also be included. Editors reserve the right to reject papers if there are doubts as to whether appropriate procedures have been used.

(ii) **Clinical trials** should be reported using the CONSORT guidelines available

at www.consort-statement.org. A CONSORT checklist should also be included in the submission material.

International Journal of Paediatric Dentistry encourages authors submitting manuscripts reporting from a clinical trial to register the trials in any of the following free, public clinical trials registries: www.clinicaltrials.gov, <http://clinicaltrials.ifpma.org/clinicaltrials/>, <http://isrctn.org/>. The clinical trial registration number and name of the trial register will then be published with the paper.

(iii) DNA Sequences and Crystallographic Structure Determinations: Papers reporting protein or DNA sequences and crystallographic structure determinations will not be accepted without a Genbank or Brookhaven accession number, respectively. Other supporting data sets must be made available on the publication date from the authors directly.

Results should clearly and concisely report the findings, and division using subheadings is encouraged. Double documentation of data in text, tables or figures is not acceptable. Tables and figures should not include data that can be given in the text in one or two sentences.

Discussion section presents the interpretation of the findings. This is the only proper section for subjective comments and reference to previous literature. Avoid repetition of results, do not use subheadings or reference to tables in the results section.

Bullet Points should include one heading:

*Why this paper is important to paediatric dentists.

Please provide maximum 3 bullets per heading.

Review Articles: may be invited by the Editor. Review articles for the *International Journal of Paediatric Dentistry* should include: a) description of search strategy of

relevant literature (search terms and databases), b) inclusion criteria (language, type of studies i.e. randomized controlled trial or other, duration of studies and chosen endpoints, c) evaluation of papers and level of evidence. For examples see: Twetman S, Axelsson S, Dahlgren H et al. Caries-preventive effect of fluoride toothpaste: a systematic review. *Acta Odontologica Scandinavica* 2003; 61: 347-355. Paulsson L, Bondemark L, Söderfeldt B. A systematic review of the consequences of premature birth on palatal morphology, dental occlusion, tooth-crown dimensions, and tooth maturity and eruption. *Angle Orthodontist* 2004; 74: 269-279.

Clinical Techniques: This type of publication is best suited to describe significant improvements in clinical practice such as introduction of new technology or practical approaches to recognised clinical challenges. They should conform to highest scientific and clinical practice standards.

Short Communications: Brief scientific articles or short case reports may be submitted, which should be no longer than three pages of double spaced text, and include a maximum of three illustrations. They should contain important, new, definitive information of sufficient significance to warrant publication. They should not be divided into different parts and summaries are not required.

Acknowledgements: Under acknowledgements please specify contributors to the article other than the authors accredited. Please also include specifications of the source of funding for the study and any potential conflict of interests if appropriate. Suppliers of materials should be named and their location (town, state/county, country) included.

Supplementary data

Supporting material that is too lengthy for inclusion in the full text of the manuscript, but

would nevertheless benefit the reader, can be made available by the publisher as online-only content, linked to the online manuscript. The material should not be essential to understanding the conclusions of the paper, but should contain data that is additional or complementary and directly relevant to the article content. Such information might include the study protocols, more detailed methods, extended data sets/data analysis, or additional figures (including). All material to be considered as supplementary data must be uploaded as such with the manuscript for peer review. It cannot be altered or replaced after the paper has been accepted for publication. Please indicate clearly the material intended as Supplementary Data upon submission. Also ensure that the Supplementary Data is referred to in the main manuscript. Please label these supplementary figures/tables as S1, S2, S3, etc.

References

A maximum of 30 references should be numbered consecutively in order of appearance and should be as complete as possible. In text citations should cite references in consecutive order using Arabic superscript numerals. For more information about AMA reference style please consult the AMA Manual of Style.

Sample references follow:

Journal article

1. King VM, Armstrong DM, Apps R, Trott JR. Numerical aspects of pontine, lateral reticular, and inferior olivary projections to two paravermal cortical zones of the cat cerebellum. *J Comp Neurol* 1998;390:537-551.

Book

2. Voet D, Voet JG. *Biochemistry*. New York: John Wiley & Sons; 1990. 1223 p.

Internet document

3. American Cancer Society. *Cancer Facts & Figures* 2003.

<http://www.cancer.org/downloads/STT/CAFF2003PWSecured.pdf> Accessed March 3, 2003

Illustrations and Tables

Tables: should be numbered consecutively with Arabic numerals and should have an explanatory title. Each table should be typed on a separate page with regard to the proportion of the printed column/page and contain only horizontal lines

Figures and illustrations: All figures should be submitted electronically with the manuscript via ScholarOne Manuscripts (formerly known as Manuscript Central). Each figure should have a legend and all legends should be typed together on a separate sheet and numbered accordingly with Arabic numerals. Avoid 3-D bar charts.

Preparation of Electronic Figures for Publication: Although low quality images are adequate for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit EPS (lineart) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented programmes. Scans (TIFF only) should have a resolution of 300 dpi (halftone) or 600 to 1200 dpi (line drawings) in relation to the reproduction size (see below). EPS files should be saved with fonts embedded (and with a TIFF preview if possible).

For scanned images, the scanning resolution (at final image size) should be as follows to ensure good reproduction: lineart: >600 dpi; half-tones (including gel photographs): >300 dpi; figures containing both halftone and line images: >600 dpi.