UNIVERSIDADE FEDERAL DE JUIZ DE FORA
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Yuri de Lima Medeiros

Análise tomográfica da espessura óssea do pilar nasomaxilar e zigomaticomaxilar para fixação de miniplacas

Juiz de Fora
2020

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Trabalho de conclusão de curso apresentado à Faculdade de Odontologia da Universidade Federal de Juiz de Fora como requisito parcial à obtenção do título de Cirurgião-Dentista.

Orientador: Prof. Dr. Matheus Furtado de Carvalho

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“O que faz andar o barco não é a vela enfunada, mas o vento que não se vê.”

Platão

RESUMO

O objetivo deste estudo foi avaliar a espessura óssea do pilar nasomaxilar e zigomaticomaxilar visando identificar a região mais favorável à instalação de miniplacas e parafusos de fixação. Foram avaliadas imagens tomográficas bilaterais de 103 indivíduos, totalizando 206 pilares nasomaxilares e zigomaticomaxilares. Medições de espessura óssea foram realizadas nas reconstruções parassagitais em três linhas verticais no pilar nasomaxilar e em quatro linhas verticais do pilar zigomaticomaxilar, totalizando 21 e 28 pontos avaliados respectivamente. Os planos verticais que compõem cada pilar foram comparados entre si utilizando o teste de Kruskal-Wallis. Para a correlação das espessuras obtidas com o gênero e os lados direito/esquerdo dos pacientes foi utilizado o coeficiente de correlação de Spearman. O nível de significância adotado foi de 5%. Os pilares nasomaxilares e zigomaticomaxilares apresentam diferenças estatísticas entre as espessuras dos seus respectivos pontos ($p<0.05$). A análise do pilar nasomaxilar demonstrou que os pontos mais inferiores e pertencentes ao plano vertical localizado sobre o ápice radicular do canino superior apresentaram maior espessura. Para o pilar zigomaticomaxilar, os pontos mais superiores e distais ao plano vertical localizado sobre o ápice da raiz distal do primeiro molar superior se mostraram mais espessos. Conclui-se que, baseado na análise da espessura óssea, a posição ideal para a instalação das miniplacas no pilar nasomaxilar é sobre o plano central do canino superior a uma distância de 3 mm do seu ápice radicular. Para o pilar zigomaticomaxilar, recomenda-se a instalação de miniplacas distalmente à raiz disto-vestibular do primeiro molar superior, a uma distância de 3,5 mm do limite inferior do forame infraorbital.

Palavras-chave: Fixação maxilomandibular. Anatomia. Maxila. Tomografia computadorizada de feixe cônico. Osteotomia.

ABSTRACT

The purpose of this study was to evaluate the bone thickness of the nasomaxillary and zygomaticomaxillary buttresses to identify the most favorable region for the installation of miniplates. Bilateral tomographic images of 103 individuals were evaluated, totaling 206 nasomaxillary and zygomaticomaxillary buttresses. Measurements of bone thickness were performed in parasagittal reconstructions at three vertical lines on the nasomaxillary buttress and at four vertical lines on the zygomaticomaxillary buttress, totaling 21 and 28 measurement points respectively. The vertical line measurements for each buttress were compared with each other using the Kruskal-Wallis test. In order to correlate the thicknesses obtained with the patients' gender and the right/left sides, the Spearman's correlation coefficient was used. The level of significance adopted was 5%. The nasomaxillary and zygomaticomaxillary buttresses presented statistical differences between the thickness of their respective points ($p<0.05$). The analysis of the nasomaxillary buttress showed that there was thicker bone following the long axis of the upper canine, with more bone available in the lower points, closer to the root. For the zygomaticomaxillary buttress, bone was thicker closer to a vertical line distally to the distobuccal root of the first molar, with more bone available higher up, closer to the zygoma. In conclusion, the ideal position for the installation of miniplates on the nasomaxillary buttress is on the central plane of the maxillary canine at a distance of 3 mm from to root apex. For the zygomaticomaxillary buttress, it is recommended to install miniplates distally to the distobuccal root of the maxillary first molar, at a distance of 3.5 mm from the lower limit of the infraorbital foramen.

Keywords: Maxillomandibular fixation. Anatomy. Maxilla. Cone beam computed tomography. Osteotomy.

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LISTA DE ABREVIATURAS E SIGLAS

C	Central line following the long axis of the upper canine
CAPES	Coordenação de Aperfeiçoamento de Pessoal de Nível Superior
CBCT	Cone beam computed tomography
CD	Vertical line 4mm distal to C
cm	Centimeter
CM	Vertical line 4mm mesial to C
CT	Computerized tomography
D	Vertical line following the long axis of distobuccal root of the first upper molar
DB	Distobuccal
DD	Vertical line 3mm distal to D
FOV	Field of view
ICC	Intraclass correlation coefficient
IL	Illinois
kV	Kilovolt
M	Vertical line following the long axis of mesiobuccal root of the first upper molar
mA	Milliampere
MB	Mesiobuccal
MG	Minas Gerais
mm	Milimiter
MM	Vertical line 3mm mesial to M
PA	Pennsylvania
QLD	Queensland
Rs	Spearman correlation coeficiente
S	Seconds
SD	Standard deviation
SPSS	Statistical Package for Social Sciences
USA	United States of America
UFJF	Universidade Federal de Juiz de Fora

LISTA DE SÍMBOLOS

>	Greater than
<	Less than
≤	Less than or equal
%	Percent
±	Plus-minun sign
®	Registered
σ	Population standard deviation
-	Subtraction
e	Standard error
n	Sample number
Z	Confidence level
p	Level of statistical significance

SUMÁRIO

1 INTRODUÇÃO

O terço médio da face corresponde à região limitada, superiormente, pela linha imaginária que une as duas suturas zigomático-frontais, e inferiormente, pelas cúspides dos dentes superiores (SCHILLI, 1982). Nessa extensão, estão presentes os três pilares verticais da maxila (nasomaxilar, zigomaticomaxilar e pterigomaxilar), condensações ósseas suficientemente resistentes para receber e transmitir forças mastigatórias dos dentes ao crânio (PAKDEL et al., 2017). O pilar nasomaxilar inicia-se no alvéolo do canino, dirige-se pela borda lateral da abertura piriforme, processo frontal da maxila e termina na borda supra-orbital, enquanto que, o pilar zigomaticomaxilar inicia-se no alvéolo do primeiro molar, continua pela crista zigomaticomaxilar, corpo do osso zigomático e termina no processo frontal do zigomático (ARMAN et al., 2006).

Esses dois pilares apresentam uma cortical óssea espessa, além de ser de fácil acesso cirúrgico, sendo recomendados para ancoragem esquelética em Ortodontia (ELKORDY et al., 2016) e para instalação de osteossíntese em fraturas e/ou osteotomias a nível Le Fort I (HUANG, LO e LIN, 2016). A escolha inadequada da região de instalação das miniplacas e parafusos pode acarretar falhas e complicações pós-operatórias. Dentre elas, relata-se a micro movimentação com diminuição ou perda da estabilidade do sistema de fixação (CHA et al., 2010; GADKARI et al., 2019; MIGLIORATI et al., 2012; NASR et al., 2018), além de sinusite (NOCINI et al., 2016) e alterações neurossensoriais, devido às lesões de raízes dentárias (HO et al., 2011; RANNA et al. 2016) ou do nervo infraorbital (EL-ANWAR e SWEED, 2018; MCLEOD e BOWE, 2016).

Já existem alguns estudos biomecânicos sobre fixação óssea em osteotomia Le Fort I (UCKAN et al., 2009; ZHOU et al., 2010; HUANG, LO e LIN, 2016). No entanto, não há um estudo tomográfico dos pilares faciais, em humanos, capaz de orientar os profissionais na escolha da região mais espessa e favorável à instalação de miniplacas e parafusos de fixação. Dessa forma, o objetivo deste estudo é analisar a espessura óssea em diferentes pontos do pilar nasomaxilar e pilar zigomaticomaxilar, a fim de sugerir a localização mais segura para a instalação dos materiais de osteossíntese.

3 CONCLUSÃO

Baseado na espessura das corticais, a posição ideal para a instalação das miniplacas no pilar nasomaxilar é sobre o plano central do canino superior a uma distância de 3 mm do seu ápice radicular. Para o pilar zigomaticomaxilar, recomenda-se a instalação de miniplacas distalmente à raiz disto-vestibular do primeiro molar superior, a uma distância de 3,5 mm do limite inferior do forame infraorbital.

REFERÊNCIAS

AGGARWAL, A. et al. Anatomical study of the infraorbital foramen: A basis for successful infraorbital nerve block. **Clinical Anatomy**, New York, v. 28, n. 6, p. 753-760, set. 2015.

ALI, I. K. et al. Cone beam computed tomography assessment of accessory infraorbital foramen and determination of infraorbital foramen position. **Journal of Craniofacial Surgery**, Boston, v. 29, n. 2, p. 124-126, mar. 2018.

ARMAN, C. et al. The thickness and the lengths of the anterior wall of adult maxilla of the West Anatolian Turkish people. **Surgical and Radiologic Anatomy**, Paris, v. 28, n. 6, p. 553-558, dez. 2006.

ATAÇ, M. S. et al. Comparison of biomechanical behaviour of maxilla following Le Fort I osteotomy with 2- versus 4-plate fixation using 3D-FEA. Part 1: Advancement surgery. **International Journal of Oral and Maxillofacial Surgery**, Copenhagem, v. 37, n. 12, p. 1117-1124, dez. 2008.

ATAÇ, M. S. et al. Comparison of biomechanical behaviour of maxilla following Le Fort I osteotomy with 2- versus 4-plate fixation using 3D-FEA Part 2: Impaction surgery. **International Journal of Oral and Maxillofacial Surgery**, Copenhagem, v. 38, n. 1, p. 58-63, jan. 2009.

BELL, R. B. A history of orthognathic surgery in North America. **Journal of Oral and Maxillofacial Surgery**, Philadelphia, v. 76, n. 12, p. 2466-2481, dez. 2018.

CHA, J. Y. et al. Miniscrew stability evaluated with computerized tomography scanning. **American Journal of Orthodontics and Dentofacial Orthopedics**, St. Louis, v. 137, n. 1, p. 73-79, jan. 2010.

CHEN, C. H. et al. The use of miniplate osteosynthesis for skeletal anchorage. **Plastic and Reconstructive Surgery**, Baltimore, v. 120, n. 1, p. 232-235, jul. 2007.

EL-ANWAR, M. W.; SWEED, A. H. Infraorbital foramen localization in orbitozygomatic fractures: a CT study with intraoperative finding. **European Archives of Oto-Rhino-Laryngology**, Heidelberg, v. 273, n. 3, p. 809-813, mar. 2018.

ELKORDY, S. A. et al. Can the use of skeletal anchors in conjunction with fixed functional appliances promote skeletal changes? A systematic review and meta-analysis. **European Journal of Orthodontics**, Oxford, v. 38, n. 5, p. 532-545, out. 2016.

EPKER, B. N.; SCHENDEL, S. A. Total maxillary surgery. **International Journal of Oral Surgery**, Copenhagem, v. 9, n. 1, p. 1-24, fev. 1980.

ERKMEN, E. et al. Comparison of biomechanical behaviour of maxilla following Le Fort I osteotomy with 2- versus 4-plate fixation using 3D-FEA: Part 3: Inferior and anterior repositioning surgery. **International Journal of Oral and Maxillofacial Surgery**, Copenhagem, v. 38, n. 2, p. 173-179, fev. 2009.

EROGLU, S. E.; SABUNCUOGLU, F. A. Changes in dental pulp blood flow of different maxillary tooth types after Le Fort I osteotomy. **Journal of Craniofacial Surgery**, Boston, v. 25, n. 5, p. 420-424, set. 2014.

GADKARI, N. et al. Comparative evaluation of 2-point vs 3-point fixation in the treatment of zygomaticomaxillary complex fractures - A systematic review. **Journal of Cranio-Maxillofacial Surgery**, Stuttgart, v. 47, n. 10, p. 1542-1550, out. 2019.

HO, M. W. et al. Surgical complications of segmental Le Fort I osteotomy. **British Journal of Oral and Maxillofacial Surgery**, Edinburgh, v. 49, n. 7, p. 562-566, out. 2011.

HUANG, S. F.; LO, L. J.; LIN, C. L. Biomechanical interactions of different mini-plate fixations and maxilla advancements in the Le Fort I Osteotomy: a finite element analysis. **Comput Methods Biomech Biomed Eng**, Amsterdam, v. 19, n. 6, p. 1704-1713, dez. 2016.

KAHNBERG, K. E.; ENGSTRÖM, H. Recovery of maxillary sinus and tooth sensibility after Le Fort I osteotomy. **British Journal of Oral and Maxillofacial Surgery**, Edinburgh, v. 25, n. 1, p. 68-73, fev. 1987.

KAMBUROĞLU, K. et al. C Assessment of zygomatic bone using cone beam computed tomography in a Turkish population. **Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology**, St. Louis, v. 123, n. 2, p. 257-264, fev. 2017.

LEE, H. S. et al. Bone thickness of the infrazygomatic crest area in skeletal Class III growing patients: A computed tomographic study. **Imaging Science in Dentistry**, v. 43, n. 4, p. 261-266, dez. 2013.

LIOU, E. J. et al. A computed tomographic image study on the thickness of the infrazygomatic crest of the maxilla and its clinical implications for miniscrew insertion. **American Journal of Orthodontics and Dentofacial Orthopedics**, St. Louis, v. 131, n. 3, p. 352-356, mar. 2007.

MCLEOD, N. M.; BOWE, D. C. Nerve injury associated with orthognathic surgery. Part 3: lingual, infraorbital, and optic nerves. **British Journal of Oral and Maxillofacial Surgery**, Edinburgh, v. 54, n. 4, p. 372-375, mai. 2016.

MIGLIORATI, M. et al. Miniscrew design and bone characteristics: an experimental study of primary stability. **American Journal of Orthodontics and Dentofacial Orthopedics**, St. Louis, v. 142, n. 2, p. 228-233, ago. 2012.

NASR, W. F. et al. Two- versus three-point internal fixation of displaced zygomaticomaxillary complex fractures. **Craniomaxillofacial Trauma and Reconstruction**, New York, v. 11, n. 4, p. 256-264, dez 2018.

NOCINI, P. F. et al. Is Le Fort I osteotomy associated with maxillary sinusitis? **Journal of Oral and Maxillofacial Surgery**, Philadelphia, v. 74, n. 2, p. 401-412, fev. 2016.

OHIOMOBA, H. et al. Quantitative evaluation of maxillary alveolar cortical bone thickness and density using computed tomography imaging. **American Journal of Orthodontics and Dentofacial Orthopedics**, St. Louis, v. 151, n. 1, p. 82-91, jan. 2017.

PAKDEL, A. R.; WHYNE, C. M.; FIALKOV, J. A. Structural biomechanics of the craniomaxillofacial skeleton under maximal masticatory loading: Inferences and critical analysis based on a validated computational model. **Journal of Plastic, Reconstructive and Aesthetic Surgery**, Oxford, v. 70, n. 6, p. 842-850, jun. 2017.

PRÄGER, T. M. et al. Bone condition of the maxillary zygomatic process prior to orthodontic anchorage plate fixation. **Journal of Orofacial Orthopedics**, Munich, v. 76, n. 1, p. 3-13, jan. 2015.

RANNA, V. et al. Influence of the orthognathic surgical procedure Le Fort I osteotomy on the vascularity and neurosensory response of the dental pulp: A systematic review. **Quintessence International**, Berlin, v. 47, n. 8, p. 677-686, 2016.

SCHILLI, W. Facial deformities and their treatment. **International Dental Journal**, London, v. 32, n. 2, p. 168-174, jun. 1982.

SUENAGA, H. et al. Computer-assisted preoperative simulation for positioning of plate fixation in Le Fort I osteotomy: a case report. **Journal of the Formosan Medical Association**, Taipei, v. 115, n. 6, p. 470-474, jun. 2016.

SUSARLA, S. M. et al. Two-point nasomaxillary fixation of the Le Fort I osteotomy: assessment of stability at one year postoperative. **International Journal of Oral and Maxillofacial Surgery**, Copenhagem, v. 49, n. 4, p. 466-470, abr. 2020.

UCKAN, S. et al. Comparison of stability of resorbable and titanium fixation systems by finite element analysis after maxillary advancement surgery. **Journal of Craniofacial Surgery**, Boston, v. 20, n. 3, p. 775-779, mai. 2009.

USUI, T. et al. Change in maximum occlusal force in association with maxillofacial growth. **Orthodontics and Craniofacial Research**, Oxford, v. 10, n. 4, p. 226-234, nov. 2007.

WAARD, O. et al. A novel method for fusion of intra-oral scans and cone-beam computed tomography scans for orthognathic surgery planning. **Journal of Cranio-Maxillofacial Surgery**, Stuttgart, v. 44, n. 2, p. 160-166, fev. 2016.

ZHOU, J. et al. Finite element study of maxillary Le Fort-I osteotomy with rigid internal fixation. **Zhonghua Zheng Xing Wai Ke Za Zhi**, Beijing, v. 26, n. 3, p. 185-189, mai. 2010.

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• title page
• abstract
• text
• acknowledgements
• references
• tables
• captions to illustrations.

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The title page should give the following information:

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200 words maximum. Do not use subheadings or abbreviations; write as a continuous paragraph. Must contain all relevant information, including results and conclusion.

Text

Please ensure that the text of your paper conforms to the following structure: Introduction, Materials and Methods, Results, Discussion. There is no separate Conclusion section.

Introduction

• Present first the nature and scope of the problem investigated
• Review briefly the pertinent literature
• State the rationale for the study
• Explain the purpose in writing the paper
• State the method of investigation and the reasons for the choice of a particular method
• Should be written in the present tense

Materials and Methods

• Give the full details, limit references
• Should be written in the past tense
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• Limit the number of subheadings, and use the same in the results section
• Mention statistical method
• Do not include results in this section

Results

• Do not describe methods

• Present results in the past tense

• Present representations rather than endlessly repetitive data

• Use tables where appropriate, and do not repeat information in the text

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• Discuss - do not recapitulate results

• Point out exceptions and lack of correlations. Do not try to cover up or 'fudge' data

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• State your conclusions very clearly

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All references cited in the text must be included in the list of references at the end of the paper. Each reference listed must include the names of all authors. Please see section "Article Types" for guidance on the maximum number of reference for each type of article.

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4. Please include any financial disclosures at the end of the letter. This would include the potential conflicts of interest not just related to the specific content of your letter but also the content of the IJOMS article and other related areas.

5. Please recognize that letters that are essentially in agreement with the author's findings and offer no additional insights provide little new information for publication. Likewise, letters that highlight the writer's own research or are otherwise self promotional will receive a low publication priority.

6. There may be a need for additional editing. Should editing be required the letter will be sent back to the author for final approval of the edited version.

7. It is important to use civil and professional discourse. It is not advisable that one adopt a tone that may be misconstrued to be in anyway insulting.

8. Finally, it is not advisable to provide a letter that is anecdotal. While personal experiences can have great value in patient care, it is generally not strong evidence to be placed in a letter to the editor.

ANEXO B – PARECER DO COMITÊ DE ÉTICA EM PESQUISA

UFJF - UNIVERSIDADE FEDERAL DE JUIZ DE FORA - MG

PARECER CONSUBSTANCIADO DO CEP

DADOS DO PROJETO DE PESQUISA

Título da Pesquisa: Análise tomográfica da espessura óssea dos pilares caninos e zigomáticos para instalação de miniplacas e parafusos

Pesquisador: Matheus Furtado de Carvalho

Área Temática:

Versão: 1

CAAE: 04403418.6.0000.5147

Instituição Proponente: FACULDADE DE ODONTOLOGIA

Patrocinador Principal: Financiamento Próprio

DADOS DO PARECER

Número do Parecer: 3.123.578

Apresentação do Projeto:

Apresentação do projeto está clara, detalhada de forma objetiva, descreve as bases científicas que justificam o estudo.

Objetivo da Pesquisa:

Os Objetivos da pesquisa estão claros bem delineados, apresenta clareza e compatibilidade com a proposta, tendo adequação da metodologia aos objetivos pretendido.

Avaliação dos Riscos e Benefícios:

Riscos e benefícios descritos em conformidade com a natureza e propósitos da pesquisa. O risco que o projeto apresenta é caracterizado como risco mínimo e benefícios esperados estão adequadamente descritos.

Comentários e Considerações sobre a Pesquisa:

O projeto está bem estruturado, delineado e fundamentado, sustenta os objetivos do estudo em sua metodologia de forma clara e objetiva, e se apresenta em consonância com os princípios éticos norteadores da ética na pesquisa científica envolvendo seres humanos elencados na resolução 466/12 do CNS e com a Norma Operacional Nº 001/2013 CNS.

Considerações sobre os Termos de apresentação obrigatória:

O protocolo de pesquisa está em configuração adequada, apresenta FOLHA DE ROSTO devidamente preenchida,com o título em português, identifica o patrocinador pela pesquisa.

Endereço: JOSE LOURENCO KELMER S/N
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UF: MG **Município:** JUIZ DE FORA
Telefone: (32)2102-3788 **Fax:** (32)1102-3788 **E-mail:** cep.propesq@ufjf.edu.br

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Continuação do Parecer: 3.123.578

Solicita dispensa do TERMO DE CONSENTIMENTO LIVRE ESCLARECIDO, pois se trata de estudo retrospectivo de tomografia computadorizada pertencente ao banco de dados de disciplina da Faculdade de Odontologia da UFJF. Pesquisador apresenta titulação e experiência compatível com o projeto de pesquisa, estando de acordo com as atribuições definidas no Manual Operacional para CPEs. Apresenta DECLARAÇÃO de infraestrutura e de concordância com a realização da pesquisa de acordo com as atribuições definidas na Norma Operacional CNS 001 de 2013.

Conclusões ou Pendências e Lista de Inadequações:

Diante do exposto, o projeto está aprovado, pois está de acordo com os princípios éticos norteadores da ética em pesquisa estabelecido na Res. 466/12 CNS e com a Norma Operacional N° 001/2013 CNS. Data prevista para o término da pesquisa:30/06/2020.

Considerações Finais a critério do CEP:

Diante do exposto, o Comitê de Ética em Pesquisa CEP/UFJF, de acordo com as atribuições definidas na Res. CNS 466/12 e com a Norma Operacional N°001/2013 CNS, manifesta-se pela APROVAÇÃO do protocolo de pesquisa proposto. Vale lembrar ao pesquisador responsável pelo projeto, o compromisso de envio ao CEP de relatórios parciais e/ou total de sua pesquisa informando o andamento da mesma, comunicando também eventos adversos e eventuais modificações no protocolo.

Este parecer foi elaborado baseado nos documentos abaixo relacionados:

Tipo Documento	Arquivo	Postagem	Autor	Situação
Informações Básicas do Projeto	PB_INFORMAÇÕES_BÁSICAS_DO_PROJETO_1272410.pdf	07/12/2018 22:54:01		Aceito
Folha de Rosto	folha_de_rost_Yuri.pdf	07/12/2018 22:52:49	Matheus Furtado de Carvalho	Aceito
Outros	Declaracao_radio.pdf	06/12/2018 16:59:47	Matheus Furtado de Carvalho	Aceito
TCLE / Termos de Assentimento / Justificativa de Ausência	Dispensa_do_TCLE.pdf	06/12/2018 16:44:22	Matheus Furtado de Carvalho	Aceito
Projeto Detalhado / Brochura	Plataforma_Brasil_Yuri.docx	06/12/2018 16:33:58	Matheus Furtado de Carvalho	Aceito

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Continuação do Parecer: 3.123.578

Investigador	Plataforma_Brasil_Yuri.docx	06/12/2018 16:33:58	Matheus Furtado de Carvalho	Aceito

Situação do Parecer:
Aprovado

Necessita Apreciação da CONEP:
Não

JUIZ DE FORA, 28 de Janeiro de 2019

Assinado por:
Jubel Barreto
(Coordenador(a))

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