Detalle Proyecto

DATOS DEL PROYECTO DE INVESTIGACION			
Título:	EVALUATION OF CORONAL MICROLEAKAGE OF INTRA-ORIFICE BARRIER MATERIALS IN ENDODONTIALLY TREATED TEETH: A SISTEMATIC REVIEW		
Director del Proyecto:	MARIA JOSE BURBANO BALSECA		
Grupo de Investigación:	Grupo Ciencias de la Salud	**Centro de Investigación:**	Centro de investigación Ciencias de Salud
Fecha de inicio:	2023-01-12	**Fecha de fin:**	2023-12-14
Duración:	0 años	**Total meses:**	11 meses

Justificación:	Encontrar los mejores materiales y técnicas para la obturación de conductos
Línea de Investigación:	Ciencias Odontológicas
Relevancia Científica:	Encontrar la forma mas efectiva para la limpieza de conductos
Planteamiento del problema de Investigación:	Evaluar a nivel apical si los sitemas son los apropiados para un la limpieza apical optima
Objetivo General:	Como desinfectar en forma efectiva los conductos radiculares
Objetivos Específicos:	encontrar materiales efectivos para la no reinfección
Articulación con los objetivos del Plan Nacional de Desarrollo, de la región y de la zona de influencia local:	Es un plan de influencia local
Estado del Arte:	Próximo a ser publicado
Propuesta Metodológica:	Revisión bibliográfica

Referentes Bibliográficos:	Khayat A, Lee SJ, Torabinejad M. Human saliva penetration of coronally unsealed obturated root canals. J Endod 1993;19:458-61. 2. Swanson K, Madison S. An evaluation of coronal microleakage in endodontically treated teeth. Part I. Time periods. J Endod 1987;13:56-9. 3. D'costa VF, Bangera MK, Kutty SM. Coronal seal in endodontics. Int J Curr Res 2017;9:49499-502. 4. Roghanizad N, Jones JJ. Evaluation of coronal microleakage after endodontic treatment. J Endod 1996;22:471-3. 5. Ray HA, Trope M. Periapical status of endodontically treated teeth in relation to the technical quality of the root filling and the coronal restoration. Int Endod J 1995;28:12-8. 6. Pisano DM, DiFiore PM, McClanahan SB, Lautenschlager EP, Duncan JL. Intraorifice sealing of gutta-percha obturated root canals to prevent coronal microleakage. J Endod 1998;24:659-62. 7. Tselnik M, Baumgartner JC, Marshall JG. 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Comparative evaluation of sealing ability of four different restorative materials used as coronal sealants: An in vitro study. J Int Oral Health 2014;6:12-7. 16. Available from: https://prisma-statement.org/prismastatement/. [Last accessed on 2022 May 5]. 17. Available from: https://www.crd.york.ac.uk/prospero/display_record. php?Recordid=226225. [Last accessed on 2022 May 26]. 18. Shindo K, Kakuma Y, Ishikawa H, Kobayashi C, Suda H. The influence of orifice sealing with various filling materials on coronal leakage. Dent Mater J 2004;23:419-23. 19. Bailón-Sánchez ME, González-Castillo S, González-Rodríguez MP, Poyatos-Martínez R, Ferrer-Luque CM. Intraorifice sealing ability of different materials in endodontically treated teeth. Med Oral Patol Oral Cir Bucal 2011;16:e105-9. 20. Lee KS, Kim JS, Lee DY, Kim RJ, Shin JH. In vitro microleakage of six different dental materials as intraorifice barriers in endodontically treated teeth. Dent Mater J 2015;34:425-31. 21. Parekh B, Irani RS, Sathe S, Hegde V. Intraorifice sealing ability of different materials in endodontically treated teeth: An in vitro study. J Conserv Dent 2014;17:234-7. 22. Faraj BM, Mohammed HM, Mohammed KM; University of Sulaimani. Coronal sealing ability of copalite varnish with different intermediate restorations as an intra-orifice barrier in endodontically treated teeth. A comparative in-vitro study. JSMC 2013;3:89-95. 23. Ramezanali F, Aryanezhad S, Mohammadian F, Dibaji F, Kharazifard MJ. In vitro microleakage of mineral trioxide aggregate, calcium-enriched mixture cement and biodentine intra-orifice barriers. Iran Endod J 2017;12:211-5. 24. Kumar G, Dengre A. Comparative evaluation of different restorative material used as intra orifice barrier in preventing coronal microleakage: An in vitro study. Int J Appl Dent Sci 2018;4:89-91. 25. Gomaa MM, Ghulman MA. Evaluation of four materials as barriers to coronal microleakage in a novel intra-orifice cavity design. Int J Clin Dent 2013;6:149-60. 26. Available from: https://jbi.global/critical-appraisal-tools. [Last accessed on 2022 May 5] 27. Ghulman MA, Gomaa M. Effect of intra-orifice depth on sealing ability of four materials in the orifices of root-filled teeth: An ex-vivo study. Int J Dent 2012;2012:318108. 28. Yavari H, Samiei M, Eskandarinezhad M, Shahi S, Aghazadeh M, Pasvey Y. An in vitro comparison of coronal microleakage of three orifice barriers filling materials. Iran Endod J 2012;7:156-60. 29. Malik G, Bogra P, Singh S, Samra RK. Comparative evaluation of intracanal sealing ability of mineral trioxide aggregate and glass ionomer cement: An in vitro study. J Conserv Dent 2013;16:540-5. 30. Salim B, Hassan N. Effect of different intra-Orifice barriers in endodontically treated teeth obturated with gutta-Percha. IAJD 2015;6:113-8. 31. Tapashetti S, Yeli M, Rao N. Comparison of intracoronal sealing ability of mineral trioxide aggregate and glass ionomer cement" an in vitro study. 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Sealing ability of three materials in the orifice of root canal systems obturated with gutta-percha. J Endod 2006;32:225-7. 48. Korkmaz Y, Ozel E, Attar N. Effect of flowable composite lining on microleakage and internal voids in Class II composite restorations. J Adhes Dent 2007;9:189-94. 49. Lokhande NA, Padmai AS, Rathore VP, Shingane S, Jayashankar DN, Sharma U. Effectiveness of flowable resin composite in reducing microleakage-An in vitro study. J Int Oral Health 2014;6:111-4. 50. Ahlberg KM, Assavanop P, Tay WM. A comparison of the apical dye penetration patterns shown by methylene blue and India ink in root-filled teeth. Int Endod J 1995;28:30-4. 51. Attar N, Turgut MD. Fluoride release and uptake capacities of fluoride-releasing restorative materials. Oper Dent 2003;28:395-402. 52. De Moor RJ, Verbeeck RM, De Maeyer EA. Fluoride release profiles of restorative glass ionomer formulations. Dent Mater 1996;12:88-95. 53. Beckham BM, Anderson RW, Morris CF. 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Pavuluri C, Nuvvula S, Kamatham RL, Nirmala S. Comparative evaluation of microleakage in conventional and RMGIC restorations following conventional and chemomechanical caries removal: An in vitro study. Int J Clin Pediatr Dent 2014;7:172-5. 59. Jafari F, Jafari S. Importance and methodologies of endodontic microleakage studies: A systematic review. J Clin Exp Dent 2017;9:e812-9. 60. Alani AH, Toh CG. Detection of microleakage around dental restorations: A review. Oper Dent 1997;22:173-85. 61. Camps J, Pashley D. Reliability of the dye penetration studies. J Endod 2003;29:592-4. [Downloaded free from http://www.jcd.org.in on Thursday, October 13, 2022, IP: 49.36.103.163] Supplementary Table 1: Search strategy Database Search strategy Number PubMed (((Intraorifice barrier OR Intraorifice plug OR Intra-orifice barrier OR Intra-orifice plug OR Intracoronal plug OR Intracoronal barrier OR double seal technique) AND (Dental microleakage OR Coronal Microleakage)) AND (Dye penetration test OR Methylene blue)) AND (Mineral trioxide aggregate OR MTA OR Glass ionomer OR GIC OR Composite) 4 EBSCOhost (((Intraorifice barrier OR Intraorifice plug OR Intra-orifice barrier OR Intra-orifice plug OR Intracoronal plug OR Intracoronal barrier OR double seal technique) AND (Dental microleakage OR Coronal Microleakage)) AND (Dye penetration test OR Methylene blue)) AND (Mineral trioxide aggregate OR MTA OR Glass ionomer OR GIC OR Composite) 1 Cochrane, Scopus, and Embase (((Intraorifice barrier OR Intraorifice plug OR Intra-orifice barrier OR Intra-orifice plug OR Intracoronal plug OR Intracoronal barrier OR double seal technique) AND (Dental microleakage OR Coronal Microleakage)) AND (Dye penetration test OR Methylene blue)) AND (Mineral trioxide aggregate OR MTA OR Glass ionomer OR GIC OR Composite) 0 Google Scholar (((Intraorifice barrier OR Intraorifice plug OR Intra-orifice barrier OR Intra-orifice plug OR Intracoronal plug OR Intracoronal barrier OR double seal technique) AND (Dental microleakage OR Coronal Microleakage)) AND (Dye penetration test OR Methylene blue)) AND (Mineral trioxide aggregate OR MTA OR Glass ionomer OR GIC OR Composite) 28 Supplementary Table 2: Reason for exclusion of articles Author Year Reason for exclusion Database Shindo et al. [18] 2004 Stereomicroscope not used; digital microscope was used PubMed Yavari et al. [10] 2012 Variation in method of testing microleakage PubMed Bailón-Sánchez et al. [19] 2011 Variation in method of testing microleakage PubMed Lee et al. [20] 2015 Stereomicroscope not used; digital image used PubMed Parekh et al. [21] 2014 Variation in dye used for testing microleakage PubMed Faraj et al. [22] 2013 Study was done on molar tooth Google Scholar Ramezanali et al. [23] 2017 Variation in dye used for testing microleakage Google Scholar Kumar and Dengre[24] 2018 Study was done on molar tooth Google Scholar Gomaa and Ghulman[25] 2013 Cavity design was modified EBSCOhost [Downloaded free from http://www.jcd.org.in on Thursday, October 13, 2022, IP: 49.36.103.163
Productos Esperados:	Artículo internacional
Impacto esperado sobre la colectividad:	Limpieza de los conductos en forma apropiada

RECURSOS HUMANOS			
Identificación	**Nombre**	**Categoría**	**Teléfono**
1714769666	MARIA JOSE BURBANO BALSECA	DIRECTOR	0987673963

RECURSOS ECONOMICOS		
Descripción	**UHE (USD)**	**Institución Beneficiaria (USD)**
		400
TOTAL	0	400

CRONOGRAMA		
Actividad	**Fecha Inicio**	**Fecha Fin**
Publicación artículo	2023-02-10	2023-11-24

INFORMACION ADICIONAL	
Tipo de investigacion:	BASICA
Desarrollo experimental según el área del conocimiento UNESCO:	Ciencias
Disciplina Científica:	Ciencias naturales y exactas
Objetivo socioeconómico:	Salud
Ámbito geográfico:	Internacional
Articulación con los Objetivos de Desarrollo Sostenible (ODS):	Garantizar una vida sana y promover el bienestar para todos en todas las edades

OBSERVACIONES