

Una visión actual sobre el carbón activado en pastas dentales; revisión bibliográfica

A current view on activated charcoal in toothpaste; A bibliographic review

Nicolás Martínez¹, Daniela Sanhueza¹, Viviana Vallejos¹, Daniel Pezo²

RESUMEN

Objetivo: demostrar los efectos comprobados y estudiados de pastas dentales con carbón activado.

Materiales y métodos: Se realizó una búsqueda de artículos en base de datos Pubmed, wiley y Ebsco, que incluyó estudios en idioma español, portugués e inglés, publicados los últimos 5 años, utilizando los términos “Charcoal” or “Activated Carbon” and “charcoal-based dentifrices”

Resultados: Se obtuvo un total de 512 publicaciones de las cuales se seleccionaron 12 que abarcan estudios experimentales en laboratorio, estudios in vitro y revisiones bibliográficas que presentan relevancia en base al tema de interés.

Conclusión: La evidencia disponible no permite confirmar las propiedades con las que se publicitan estas pastas en base a carbón activado, al contrario, existe evidencia de posibles efectos nocivos los cuales son omitidos dentro del marketing en el cual están inmersos estos productos.

1. Pregrado Odontología, Universidad del Desarrollo, Chile.
2. Odontología Universidad del Desarrollo, Chile.

VII Jornada Científica de Estudiantes de Odontología UV
(Valparaíso, Chile)
Locación: Online
Año: 2020
Presentación Oral
10 de octubre – 11:25 a 11:45 hr

Correspondencia:

Fernando Pérez Cabrera

Correo electrónico:
fernando.perez.1@ug.uchile.cl

PALABRAS CLAVE:

carbón activado; pastas dentales; blanqueamiento.

KEYWORDS:

activated charcoal; toothpastes; whitening.

ABSTRACT

Objective: This review aims to describe the proven and studied effects of this type of toothpaste.

Material and methods: A search was carried out in the Pubmed, Wiley, and Ebsco databases, which included studies in Spanish, Portuguese and English, published in the last 5 years, using the terms "Charcoal" or "Activated Carbon" and "charcoal-based dentifrices."

Results: A total of 512 publications were obtained, of which 12 were selected, covering experimental studies in the laboratory, in vitro studies, and bibliographic reviews relevant, based on the topic of interest.

Conclusion: The available evidence does not allow to confirm the properties with which these activated carbon-based toothpaste are advertised; on the contrary, there is evidence of possible harmful effects that are omitted within the marketing in which these products are immersed.

REFERENCIAS

- [1] Orellana, Jose & Morales-Castillo, Verónica & Guerrero Sotelo, Roxana. (2020). Activated Carbon in Toothpastes: Fashion or an Option in Oral Cleaning. 7. 59-63.
- [2] Brooks JK, Bashirelahi N, Reynolds MA. Charcoal and charcoal-based dentifrices: A literature review. *J Am Dent Assoc.* 2017;148(9):661-70.
- [3] Greenwall LH, Greenwall-Cohen J, Wilson NHF. Charcoal-containing dentifrices. *Br Dent J.* 2019;226(9):697-700.
- [4] Franco MC, Uehara J, Meroni BM, Zuttion GS, Cenci MS. The Effect of a Charcoal-based Powder for Enamel Dental Bleaching [published online ahead of print, 2020 Apr 3]. *Oper Dent.* 2020;10.2341/19-122-L.
- [5] Rodrigues BAL, Melo LSA, Ribeiro RAO, Nascimento ABL, Teixeira HM. Avaliação através da tomografia por coerência óptica do esmalte dentário após o uso de dentifícios clareadores. *Rev Odontol UNESP.* 2019;48:e20190078.
- [6] Vaz VTP, Jubilato DP, Oliveira MRM, et al. Whitening toothpaste containing activated charcoal, blue covarine,

hydrogen peroxide or microbeads: which one is the most effective?. *J Appl Oral Sci.* 2019;27:e20180051. Published 2019 Jan 14.

- [7] Soeteman GD, Valkenburg C, Van der Weijden GA, Van Loveren C, Bakker EWP, Slot DE. Whitening dentifrice and tooth surface discoloration - a systematic review and meta analysis. *Int J Dent Hyg.* 2018;16(1)24-35.
- [8] Epple M, Meyer F, Enax J. A Critical Review of Modern Concepts for Teeth Whitening. *Dent J (Basel).* 2019;7(3):79.
- [9] Pertiwi UI, Eriwati YK, Irawan B. Surface changes of enamel after brushing with charcoal toothpaste *J Phys Conf Series.* 2017;884:012002.
- [10] Vaz VTP, Jubilato DP, de Oliveira MRM, Bortolatto JF, Floros MC, Dantas AAR, & de Oliveira OB Jr (2019) Whitening toothpaste containing activated charcoal, blue covarine, hydrogen peroxide or microbeads: which one is the most effective *Journal of Applied Oral Science* 27 e20180051.
- [11] Juurlink DN. Activated charcoal for acute overdose: a reappraisal. *Br J Clin Pharmacol.* 2016;81(3):482-7.
- [12] Sulaiman TA, Camino RN, Cook R, Delgado AJ, Roulet J-F, Clark WA. Time-lasting ceramic stains and glaze: A toothbrush simulation study. *J Esthet Restor Dent.* 2020;1-5.