History of the tooth worm

This is one chapter of the Encyclopedia of the History of Dentistry.

Dr. Andrew I. Spielman, D.M.D., Ph.D.,

Professor of Molecular Pathobiology, Director of the Rare Book Library and Historical Archives, New York University College of Dentistry, New York, NY, USA. <u>ais1@nyu.edu</u>

Dr. Forrai Judith, D.Sc.,

Semmelweis University, Institute of Public Health, Department of History of Medicine, Budapest, Hungary forraijud@gmail.com

Initially submitted 28 March 2023; accepted for publication 15 April 2023

Please cite this article as: History of the tooth worm. In: Encyclopedia of the History of Dentistry. Forrai J, Spielman AI eds. 2023. Doi: <u>10.32558/encyclopedia.dentistry.17; 10.17107/KH.2023.26.39</u>

Abstract

The earliest written record related to teeth relates to the "tooth worm".

Keywords: caries, tooth decay, tooth worm, toothache, superstition

The earliest written record related to teeth relates to the "tooth worm". It was an Assyro-Babylonian clay tablet with a cuneiform inscription found by Henry Layard dating to 3,000 BCE. The legend of the *tooth worm* was thought to cause tooth decay, dental pain, and the tormentor of humanity. An 18th-century representation of the tooth worm affecting the tooth shows an image from Hell (Figure).

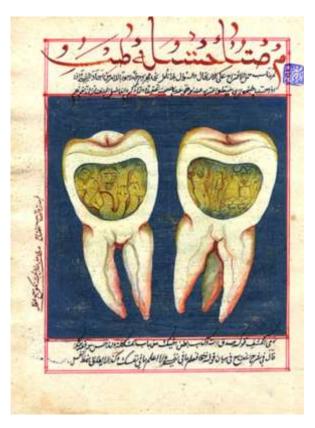
To combat the *tooth worm*, a highly poisonous plant root, *Hyoscyamus nigra* (henbane), was employed to fumigate the tooth to lessen the suffering (1). The concept of the tooth worm also appeared in ancient Chinese and Indian cultures. Even Ambroise Paré, the great surgeon of four French Kings, believed in the tooth worm and used acid or hot iron cauterization to remove the damaged area of the tooth in the hope of stopping the progress of tooth decay. Pierre Fauchard, the 18th-century French surgeon dentist and the *Father of Dentistry*, suggested gargling with freshly collected urine to reduce tooth decay.

Medieval Anglo-Saxon Medicine also mentions tooth worms as the cause of toothache (3), as other cultures also thought as the explanation. The idea of a tooth worm persisted well into the 18th century until Jacob Christian Schaffer (2), a German botanist, disproved them. His book was *The Imaginary Worms in Teeth, with the presumed means of dispensing them.* The concept persisted well into the early 20th century, and removing it required fumigation, oaths, or magical spells (4). A detailed overview of the story of the tooth worm is found in Ref. #5.

References.

1.Sudhoff K. Geschichte Der Zahnheilkunde, 2d Ed. Leipzig, 1926.

- 2.Schaffer JC. Die eingebildeten Wurmer in Zahnen nebst dem vermeyntlichen Hülfsmittel wider dieselben - The imaginary Worms in Teeth and the alleged remedies against the same. Regensburg, p.42, 1757. https://dental.nyu.edu/aboutus/rare-book-collection/jacob-christian-schaffer.html https://doi.org/10.5962/bhl.title.120179
- 3.Pechey J. The Storehouse of Physical Practice: Being a General Treatise of the Causes and Signs of All Diseases Afflicting Human Bodies ... To Which is Added, Several ... Forms of Medicines Used by the London Physicians. p.111. 1695. (https://www.google.com/books/edition/The_Storehouse_of_Physical_Practice_Bein/bRjAAAAcAAJ?hl=en&gbpv=1)
- 4. Gerabek WE. The tooth-worm: historical aspects of a popular medical belief. *J Clin Invest*. 1999; 3:1-6. https://doi.org/10.1007/s007840050070
- 5. Townend BR. The story of the tooth-worm. Bull Hist Med. 1944; 15(1):37-58.



1. Figure. 18th-century hand-illustrated page from an Ottoman Turk dental book representing the toothache caused by tooth worms. (Image in the public domain)

http://www.kaleidoscopehistory.hu Judit Forrai, Andrew I. Spielman