

Muslim Scholar Contribution in Restorative Dentistry

Salma ALMAHDI, DDS*

* Dental School of Ajman-University of Science & Technology Ajman-UAE
P.O.Box 29791 - Sharjah - UAE
e-mail: Salma_Almahdi@hotmail.com

Summary

Initially Islamic Medicine was based almost entirely on the works of the Greek physicians. In the voluminous body of Islamic literature which was so important for the development of western hygiene, there are, in contrast for example, to treatment of the eyes, practically no works only on stomatology. Most texts do, however, deal with problems of dental medicine, often in individual chapters.

The particular importance of Islamic Medicine for the further development of the healing arts lies in the fact that their Persian and Arabian authors repaid with compound interest the ancient treasures of the West, which they had preserved and increased, herewith they formed the fundamental bases for the European medicine of the high middle ages.

Key Words; Dental Medicine, Islamic Medicine, Middle Ages.

1. Abu Baker Muhammad Ibn Zakaria ar. Razi

The Persian ar. Razi, who was temporarily active in Baghdad in the beginning of the 10th century was said to have been a student of at-Tabari. He is regarded as a great clinician of the golden ages of Islamic civilization.

Ar. Razi cures carious defects with a wool compress dipped in boiling oil or also with special cauterizing iron, in accordance with Gibril ibn Bahtisu, he inserts asafetida or opiate into carious tooth while in accordance with Masih, he fills it with myrrh, he also uses a camphor filling or red arsenic boiled in oil, which is dropped into the root of the tooth.

Also ar. Razi recommends the method transmitted by the Galen from Archigens of opening the tooth with a drill, which if does not ease the pain alone, should be supplemented by repeating trickling of boiling oil into the drilled hole.

*.Khalifah: in 1937 Khalifah translated some interesting remarks on cavity formation and therapy from the "Al-Fahir", (The Glorious) text, which are ascribed to ar-Razi, although his authorship is not certain. From this, the quotation from Tabit ibn Qurra, a scientist active in Baghdad in the 9th century, is reproduced word for-word: Tabit says that the cause of the dental decay and crumbling of teeth is an acid moisture that comes to the teeth...if the teeth has been eaten away in part, fill it. This will prevent the

moisture from getting to the tooth, destroy it and relieve the pain.

If the decay is insignificant, file away the decay part until the tooth is even, then cauterize several times with heat and with oil and marjoram matter.

The causes of the black stain on the tooth is the same as that of decay. According to Khalifa, "tancer" is recommended here as a filling material. He explained this as an Arabic word meaning the material that the tinman or plumber works with, or a metallic salt that exists with gold and copper on the surface. This mention of tooth filling with a metal stands alone in Islamic literature, because the occasionally mentioned sealing with gold foil has not yet been proven in the original literature (1).

2. Abu Gaafar Amed ibn Ibrahim ibn abi Halid al-Gazzar

An Arab active in north Africa in the 10th century, he wrote the "Kitab Zad al-Musafir wa qut al-Hadir", (provision for the traveler and nutrition for the sedentary), and it was translated into Latin in the 11th century by Constantine in Salerno under the title "viaticum".

He talked about restoring the carious, so he said : with caries purging must take place first, and then the teeth can be filled with gallnut, dyer's, buckthorn, terbenth resin, cedar resin, myrrh, pellitory and honey, or fumigated with colocynthis root.

Scheref ed-din Sabuncuoglu: cauterization of the dental pulp through a cannula 1465 (from Huard and Gremek)



He also said: The toothworm which causes caries usually is fumigated with mustard, henbane or a dog's tooth.

He also recommended arsenic compound in the prescription for holes in the teeth, caries, loosening, and against relaxing of the nerves as a result of too much fluids (2,3).

3. Abu- Ali al Husain ibn Abdullah Ibn Sina

Ibn Sina, whose name we recognize in its Latinized form as Avicenna, was born near Bukhara in 980, and died in 1037.

He was called the {prince of physicians} as he wrote {canon medicine} which was of five volume, and this book determined the medical thinking of the world for centuries.

Ibn Sina specialized many chapters in his book talking about the art of dentistry, so concerning restorative dentistry. Ibn Sina filled carious teeth with cypress, grass, mastix, myrrh, or styrax, among others with gallnut, yellow sulfur, pepper, camphor, as well as with the drugs for fighting pain, like application of wolf's milk and arsenic from al-Gazzar. Arsenic boiled in oil should be dripped into the carious defect itself.

The great Ibn Sina also firmly maintains the stereotype of henbane fumigation as a remedy for the

toothworm, just as al-Gazzar: take four grains each of henbane and leek seeds and two half onions, knead it with goat fat until it is smooth, and make pills from it with a weight of dirham, burn one pill in a funnel under a covering of the patients head (4).

The Toothworm concept

The believe of toothworm was not accepted, as can be seen from the reports of a certain Gaubari, who lived around 1200, his "book of the Elite concerning the unmasking of mysteries and tearing of veils" contains a chapter about dentistry, in it there were revealed a quantity of tricks with which pretended toothworms (5).

Fruit maggots, dissected camel sinews were placed into the patients mouth and than shown as the toothworms which was causing the pain. These were things, therefore which in the opinion of the author, did not even exist.

REFERENCES

1. Khalifa E: Arabian description of dental caries in the 10th century. J Am.Dent.ass. 1937; 24:1847-52.
2. Kitab alhawi FI t-tibb.Vol.iii.Haidarbad 1955
3. Kitab Zad al Musafir wa-Gut al- Hadir (provisions for the traveler and nutritions for the sedentary).MS. Kopenhagen Arab.109
4. Kamil as-Sina a'at-Tibbiya (=Kitab al-Malaki) Bulaq. 12942
5. Hoffmann-Axthelm, Walter: History of Dentistry.1981.isbn 38765210