

## History Of Dentistry Among The Nations and Multicultural societies Explanation And Theory Based On The Evidences In This particular field

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**Running Title:** History Of Dentistry Among The Nations and Multicultural societies Explanation And Theory Based On The Evidences In This particular field

### Abstract:

In early ages the art of dentistry or odontology that the term came from the Ancient Greek has the same root with general medicine and at the beginning there was no division such as dental medicine or other branches. The first representative of scientific medicine, hippocrates had the most researches and hypothesis about the general course of medicine specially about the tooth.

Many of his studies was used in sacerdotal medicine and popular medicine. Without a doubt the sacerdotal medicine had many false ideas and superstitious explanations behind each disease and treatments in a way like in those time of hardcore catholics or christianity era the holy priest were the only persons that had the ability to heal the patient may with his different skills that was discovered in that time or the ones he acquired by his ancestors, For a simple toothache, the person may was an guilty and cursed or he was divine and got the routine treatment if it was existed.so basically in the past the priests were the dentists and doctors whom their skill could improve by generation after an other by getting an new experiences after each treatment.

Nowadays historian would call that the art or magic of healing.Herodotus,the great greek historian or the father of history has mentioned that babylonians used to put the sick peoples into the public squares and when passers could see them,they were able to transfer their experience with the disease and treatment and that was an absolutely amazing idea by them that could save dozens of people in that time.

The another step for creation of art of medicine was the time that in ancient era the peoples used to hung up the votive tables in the temples and those tables could contain the the brief description of their disease that they had and the recovery and treatment processes.

The priests were used to store and write these tables in the general references for example hippocrates stored all of his writings and other peoples votive tables in The Temple of Cos.

### History of dentistry among the Egyptian:

In egyptian era the priests that had the knowledge to cure the sick and labeled themselves as the servant and hand of the god , they used this ability to show off their power and force people to use them for daily needs.

These priest were called hem-netjer for males and females as hemet-netjer

(servants of the god). There were special classes that was conducted by highest ranked priests called “pastopheri” that they were teaching the methods of healing the sick and also were publishing in their own way by writing all of the description of diseases and the ingredients they used on the papyrus paper that they got this paper from stem of papyrus plant and at that time this was a huge invention.

There are different types of papyrus that we have in our museums around the world, in british museum ,paris and turin, But the most significant one is the papyrus of Ebers that has been the most important medical papyrus that yet discovered.With 108 sections plus 20 meters long contains of many diseases description and treatments specially regarding the dental diseases and general systemic diseases.

For example at one of the pages it was mentioned about the strengthening the gum tissues and some local ingredients was prescribed such as fresh dates, cow milk and Uah-corn to be mixed and applied during a day for about nine times. The surgical dentistry even extraction of simple tooth was not mentioned in this papyrus.

In the second book of herodotus it's mentioned that “Egypt is full of doctors and they are for each part of the body such as belly, teeth and eyes...” so it shows also they progressed aftertimes and had a specific doctors for each disease and they couldn't interfere in each others work.

According to joseph linderer and belzoni the archeologist , there are some artificial wooden teeth that found in egyptian sarcophagus and also they found a golden filled tooth in mummies mouth buried in the coffin, so this shows an amazing creation of dentistry knowledge and it's improvement time after time in egyptian era.

overall egypt was a centre of civilization and beginning of new era in a dentistry and medicine.

### **Dentistry among the Chinese**

Without a doubt china is the longest living nation with more than 3500 existing written history so talking about the history of medicine and dentistry about exact time of the emergence of this fields are not accurate and we just can talk about it because of the clues and written evidence that we have.

Except the fact that chinese invented the gunpowder and kite, they also invented their own paper that was first made out of rugs and bamboo about 206 B.C.

so many of the historian and doctors were writing the remedies and their evidence on these papers and storing them in the royal libraries.

But the research in medicine started around 2000years ago when the doctors had the aim to find the elixir for kings so they can live for ever.

The science of herbal medicine and acupuncture was discovered and based by chinese and the reason is that they used mostly these herbal remedies to treat the injured soldiers in different wars.

There are many different type of remedies related to dental diseases that was discovered from the old writings and historians.

specially there is a very great literature by Dabry that inspired by most of the chinese medical books. For example Fong-lan-tong that means toothache with a coldness but without any redness and swollen area or the other diseases such as Tchong-che-tong means that there is a pain in the teeth during the action of mastication.

It was also mentioned that for treatment of this disease the patient should mix the arsenic with water and directly apply it on the tooth. There are many remedies also mentioned about the treatment or prevention of caries by using a herbs such as garlic, horseradish seeds and human milk to be directly applied on the tooth.

Overall there are thousands and thousands of such remedies that has been found, So according to TCM or traditional Chinese medicine , the science of acupuncture has been used to treat the dental abscess or overall dental diseases with pain.

So the way it works is that its believed that there is a meridian pathways which carries energy, blood and information, therefore when the needle is inserted in those areas it will relieve the pain by causing hyper stimulation analgesia By sending signal to spinal cord and release of dynorphin and enkephalins.

Also serotonin and norepinephrine caused the pain inhibitor transmission . So in ancient china they just knew that these areas are specific for each organ and system and they would block the pain, For blocking the pain of toothache they would insert the needle in the areas such as:ST6 jiache,ST7 xiaguan,LI4 hegu

There are many writings that has been proven Chinese had a great start and

improvement in oral surgery Specially when they used to extract the tooth and so on. Their main ingredient for treating the toothache Was garlic by direct applying.

### **Dentistry among the Romans**

Four and half centuries before Christian era there were individuals whom were performing dental operations. Like other nations such as Egypt and Chinese there are very low evidence that we have about romans work in dentistry. But they were very famous for using the prosthetic appliance, like one case that has been found in 1907,A very magnificent piece that its function was to support the 3 inserted teeth such as 2 central incisors and 1 lateral incisor that was laminated by golden wire.

This piece belong to an woman ,that its was attached to her mouth and this collection belong to luigi nobile in teano.Tooth and integrity of it was very important for romans ,According to the twelve tables rules that was set by roman government for showing the rights and duties of roman citizens.

It was mentioned exactly as: whoever shall cause the tooth of a free man to fall shall pay a fine of 300 hundred or one slave with 150 currency money of that time.

So it shows how important teeth was for roman citizens that they have a rule for it.

One of the great historian of the rome , born in 26 bc who done a wonderful job to write one of the best encyclopedia in a field of medicine that is called De Medicina was celsus.

In his first book he only mentioned one line about dentistry and that was "After rising if It Be no winter, the mouth should be washed with a quantity of fresh water" But in his second book he mentioned many of the diseases that includes many dental diseases.

These diseases were such as aphthae ,gum ulcer, also problems that were about the eruption of canine. Also he talked about the fractures in jaw and how to treat them and the teeth close to them in the seventh chapter.

For the fractures they were using the bandages dipped into the oil and wine with flour plus a special powder called olibanum to be directly applied and the patients had to fast for two days according to celsus.

In multiple written books from historians such as plinii secundi that mentioned varies of problems and treatments of diseases specially dental related problems. Most of the treatments were by using the herbs that would naturally grow in special places for example from the book historiae mundi, there is a quote that using the herbs that didn't touch the iron is very good cure for luxations. Another herb that was mentioned for treating the toothache is to chew the root of panax and even wash the mouth with its juice.

From the great greek geographer Strabo's work we find out that some of the peoples of spain used to clean their teeth and not even with a normal water but with their Urine for better effect.

The usage of toothpicks were mentioned several times in the epigrams of the roman poet martial, Ordinarily made of lentisk wood with golden handles.

The romans also used dentifrices that was Made out of ashes of burnt stag's horn ,head of mouse or eggshells that used to apply directly For better dentition.

Galen, one of the great physicians after Hippocrates that has been living in the era of roman empire.He started to study medicine at the age of 17 and his writings and researches was

converted to a full encyclopedia. In his writings he talks about many of the dental diseases and the way to treat them.

Against gingivitis he is recommended to keep the warm oil of lentisk or

for normal pain of the teeth using of salt and olive leaves with a mixture of wine.

In most of his cures he suggested the warm applications for better effect and fast healing Procedure. The roman era without a doubt was a great era for a advancement of dentistry.

### **Dentistry among the Arabians and Persians**

Before entering the 13<sup>th</sup> century there were a great nations of Arabians and Persians that they Had many wise and genius scientist exist and lived such as Avicenna that was born in 980,son of the high persian functionary. One of his great publishes was,the canon of medicine which that book was so good that they gave him the title of "second galen".

Like galen he believed that teeth continually grow and in that case brought some meaning to the occlusion. He gave advice to everybody for having an oral hygiene and cleanliness of the tooth but opposite of others he believed that using the hard tooth powder should be avoided because it may damage the tooth.But in some cases specially if there is a tartar in oral cavity,patient should have used the burnt hartshorn or salt,honey and burnt shells of snails.

He used many oils and fats as well for example if there is a new erupted teeth in baby he would have drop some oil in the ear of the baby and cover its head and neck and jaw with a plaster spread on cotton that has been soaked in oil.Also he explained the cause of luxation of the tooth the accumulation of humors in the root and then for treatment teeth should be drilled out and cured with the related remedies.

Overall if someone has the loosen tooth he suggests that to prevent touching that tooth with Finger or tongue and try to avoid mastication as much as possible.the last priority for him was extraction of teeth, cause he believed early extraction would bring fever and harm to the organs.

In these nations they used many instrument specially for surgical operations.

One of the most Famous inventors of these instruments are abulcasis was an arab physician, surgeon and chemist.

He is considered as the greatest surgeon of the Middle Ages, and has been described as the father of surgery. These instruments include cautery, tube, currettes, retractor and etc.These instruments

had an amazing impact in the field of dentistry in

those era and make it much easier and more accurate for physicians to perform their operations.

## Conclusion

The goal of this article was to mention the very brief history of the dentistry from the great old nations before the 13<sup>th</sup> century and basically its such a hard work to briefly explain them in one article cause each nation has its own complex history and takes a long descriptions for each field specially medicine and dentistry.

So first points that we can get is that dentistry at the beginning was not an single and separated field that was practised by the physicians.

At these old nations the knowledge of medicine hashas been practised only by specific peoples but after sometimes and nation after nation these knowledge got improved and developed,that many peoples started to learn this science.

Also by time passing more of the concentration has been put on the dentistry and they slowly understood the importance of oral cavity health and hygiene.

They also got to know that only treatment for toothache is not only extracting and its treatable By using different remedies or herbs depends on the kind of nation and its advancement in Treating the dental diseases like in china using different herbs and in ancient Egypt other Different remedies,

Still till this day we cant explain the exact details of medicine knowledge that has been Practised by the nations because of the lack of written evidence but still it wonders us How complex and magnificent these nations has been practising and treating the diseases In medicine and dentistry.

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