



Takhrij and Syarah Hadith of Chemistry: Utilizing Siwak for Health

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ABSTRACT: The purpose of this research is to discuss the hadith of Muhammad SAW about benefits of chemical compounds contained in miswak. The research method used in the processing of takhrij and syarah hadith is a qualitative method with chemical analyses. The result and discussion of this research is many health benefits of miswak for human body, not only for the mouth or teeth but also for other personal health. The conclusion of this research is takhrij and syarah hadith of Muhammad SAW about miswak with chemical analyses have been tested so it can be used in accordance with the recommended Prophet Muhammad SAW.

Keywords: Chemistry, Hadith, Miswak, Syarah, Takhrij

Introduction

Siwak is a plant that has a natural antimicrobial effect against caries and periodontal bacteria. The bactericidal effect on siwak wood is produced by the content of thiocyanate (SCN-) and an alkaloid, namely Salvadorian, which regulates the acidity of the oral cavity which stimulates the gingiva. (Mo'o et al., 2019). This is supported by a WHO statement (1987) that recommends using chewing wood as an effective tool for oral health, one of which is siwak wood. Miswak has been used centuries ago during the Greek and Roman empires. Apart from religious and cultural factors, miswak is widely used by people because it is cheaper, easy to obtain, and environmentally friendly (Kusumasari, 2012).

There is a hadith from the Prophet. with regard to the recommendation for the use of miswak in the Muslim Imam Musnad number 370:

حَدَّثَنَا قُتَيْبَةُ بْنُ سَعِيدٍ وَعَمْرُو النَّاقِدُ وَزُهَيْرُ بْنُ حَرْبٍ قَالُوا حَدَّثَنَا سُفْيَانُ عَنْ أَبِي الزِّنَادِ عَنِ الْأَعْرَجِ عَنْ أَبِي هُرَيْرَةَ عَنِ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ قَالَ لَوْلَا أَنْ أُشِقَّ عَلَى الْمُؤْمِنِينَ وَفِي حَدِيثِ زُهَيْرٍ عَلَى أُمَّتِي لِأَمْرَتُهُمْ بِالسِّوَاكِ عِنْدَ كُلِّ صَلَاةٍ

Having revealed to us Qutaibah bin Sa'id and Amru an-Naqid and Zuhair bin Harb they asked, had conveyed to us Sufyan from Abu az-Zinad from al-A'raj from Abu Hurairah from Prophet sallallahu 'alaihi wasallam, "If not Troubleshoot the believers, -and in the hadith of Zuhair- on my people, I will undoubtedly tell them to be wiped out at every prayer. "

Based on the explanation above, a research formula is prepared, namely the formulation of the problem, research questions, and research objectives (Darmalaksana, 2020a). The formulation of this problem is that there is a hadith from the Prophet about the Siwak plant. This research question is how

the hadith of the Prophet about Siwak. The purpose of this research is to discuss the hadith of the Prophet about Siwak.

Research methods

The research method is qualitative through literature and field studies (Darmalaksana, 2020b). Meanwhile, the approach applied is takhrij and syarah hadith (Soetari, 2015). The interpretation in this study used chemical analysis (Diana & Triawan, 2012).

In general, there are two stages of research on hadith, namely takhrij and sharah. Takhrij is the process of removing the hadith from the hadith book to be examined for its validity, while syarah explains the hadith text with a certain analysis (Soetari, 2015). Chemistry can be viewed as having two dimensions, namely a dynamic dimension and a static dimension. The dynamic dimension of chemistry describes science as a research and assessment activity using scientific methods that rely on skills such as observation, data collection, classification, and so on. Meanwhile, based on the static dimension of chemistry it is a product of the system of ideas (chemical content), which in fact is a product of research and study activities in chemistry (Farida, 2018).

Result and Discussion

At first, a search was carried out through the hadith application regarding the keyword "Siwak" until the hadith was found in the book Musnad Imam Muslim No. 370, the curve is prefilled.

Tabel 1 List of Rawi Sanad

No	Rawi Sanad	Bird / Death		Country	Kunyah	Ulama's Comments		Circles
		B	D			-	+	
1	Abdur Rahman bin Shakhr	-	57 H	Madinah	Abu Hurairah		Friend	Friend
2	Abdur Rahman bin Hurmuz	-	117 H	Madinah	Abu Daud		-Tsiqah -Tsiqah -Tsiqah -Tsiqah -Tsiqah -Mentioned in ats 'siqaat -Tsiqah tsabat	Tabi'in middle circle
3	Abdullah bin Dzakwan Abu Az-Zanad	-	130 H	Madinah	Abu Abdur Rahman		-Tsiqah -Tsiqah -Tsiqah -"Tsiqah,faqih" -Tsiqah -Tsiqah -Tsiqah -Tsiqah -Mentioned in'ats tsiqaat -"Tsiqah,faqih" -Tsiqah tsabat	Tabi'in ordinary circle
4	Sufyan	-	198 H	Kufah	Abu		-Hafidz mutqin	Tabi'ut

	bin 'Uyainah bin Abi 'Imran Maimun				Muhammad	- Tsiqah tsabat in the hadith -Ahadul A'lam -Tsiqah tsabat -Hafidzh imam	Tabi'in middle circle
5	Qutaibah bin Sa'id bin Jamil bin Tharif bin 'Abdullah	-	240 H	Himsh	Abu Raja'	-Tsiqah -Tsiqah -Tsiqah -Tsiqah Tsabat	Tabi'ul Atba' the elderly
6	Al-Imam Abul Husain Muslim bin al- Hajjaj al- Qusyairi an- Naisaburi	204 H	261 H	Naisaburi	Muslim	Imam hadits	Mudawwin

Table 1 is a list of the rawi and sanad hadith under research. Rawi is the narrator of hadith while sanad is the chain of narrators from companionship to mudawin, namely scholars who record hadiths in the hadith book (Soetari, 1994). According to the science of hadith, the requirement for a valid hadith is that rawi must be positive according to the comments of the scholars. If there is a comment from a scholars who provides negative service to one of the narrators in the sanad route, then the hadith is a hadith dhaif (Darmalaksana, 2020d). Shahih hadith are strong traditions while dhaif hadith is weak hadith (Soetari, 1994). Requirements for authentic hadith must also be continued. If the hadith sanad is broken, then the hadith is a dhaif hadith. The proof sanad of continuity is meeting between teacher and student. If there is no objective evidence, the encounter between teacher and student can be seen from birth and death. If there is no data on births and deaths, it is predicted that the average age of scholars is around 70-90 years. The meeting of teachers and students can also be seen from the narrator's life journey. If the teacher and student are in the same place, it is predicted that the teacher and student will meet (Darmalaksana, 2020d).

The quality of this hadith is authentic. Because, from the side of the narrator, there were no comments that gave negative results. Also from the sanad side, it is connected from friend to mudawin. Although Muhammad bin Ja'far does not know the year of his birth and death, it can be estimated that between teachers and students met or contemporaries the estimate is assumed to be about 70-90 years old. In fact, the science of hadith has another parameter in providing reinforcement to hadith. Among other things, hadiths are called mutawatir in a very popular sense if the hadiths are being examined in several hadith books (Soetari, 2015). The distribution of this hadith acts as syahid and mutabi. Syahid is another hadith of a kind whereas mutabi is another sanad (Darmalaksana, 2020d). The rest, hadith so far it is the virtue of Islamic practice, so it can be argued even though its status is dhaif (Darmalaksana et al., 2017).

The scholars have given syarah, namely an explanation of the content and meaning of the hadith (Darmalaksana, 2020c). According to Sheikh Burhanuddin Islam Al-Zarnuji himself, he stated that siwak is one of the activities that can simplify and predict a person's memorization because it can educate the brain, this is stated in his book, Ta'limul Muta'allim. (Al-Zarnuji, n.d.).

This hadith can also be explained in terms of chemistry. Before that, we can first discuss that, in oral health, many complex things must be considered, such as many substances that are needed to care for oral health such as calcium, fluoride, and fiber. In this case alone, Siwak contains *Salvadora Persica* which we know contains minerals in the form of sodium chloride, potassium, sodium bicarbonate and calcium oxide, fluoride, vitamin C which functions to clean teeth and each has its own role such as fluoride which can inhibit decalcification. email dissolving.

Then the siwak which contains chloride actually has a useful function for the removal of stains, also this silica is part of the ingredients for cleaning teeth, and don't forget to use this trimethylamine to be part of reducing calculus and stain (Almas & Z, 2004). Also in a study, we have shown that brushing teeth using miswak is alleged to have a more effective function than using a regular toothbrush to try to reduce the presence of dental plaque and also gingivitis, lastly which can be useful in oral hygiene for the interproximal part and tooth fissure (Al-Otaibi et al., 2003).

After discussing the use of miswak for teeth, it turns out that miswak also has other uses in terms of use, in a study itself it can be used as an antiseptic. Where initially it was used for siwak extract which contained oxygenated monoterpene compounds, namely 1,8-Cineole and anions (Cl⁻ and SO₄²⁻) this synergizes into damaging the cell membrane and also penetrates the bacterial enzyme system *E. Coli*. Meanwhile, the miswak residue in it also contains benzyl isothiocyanate (BITC) compounds which are genotoxic. It should also be noted that miswak can disinfect 99.995% in other words 4,3-log reduction and 99,980% or 3,7-log reduction of *Escherichia coli* bacteria in an extracted volume of 15 mL with the required contact time of 5 minutes and 10 mL. at a contact time of 10 minutes. And for the use of miswak extract, there is a rate of bacterial death occurring in the range of -0.167-1.703 / minute. So in essence, the siwak residue is considered to reduce the presence of *E. Coli* by about 88.80%, in other words, a 0.951-log reduction in the residual mass of 15 mg takes 10 minutes for contact time and finally, for a bacterial death rate it requires between 0.013- 1,400 / minute (Ramadhani et al., 2020).

In another study, the field under study is different, namely, the effect of alcohol and water extracts on Siwak on the increase in activity and capacity of Macrophage Cell Phagocytosis, the material being tested is definitely siwak and tested on white mice (*Mus musculus*) Swiss Webster strain (male), suspension *S. epidermis* and Giemsa test bacteria for staining. From there it is given the fact that the activity and capacity of phagocytosis increases with an increase in a given concentration, in the sense that the activity and capacity of phagocytosis are directly proportional to the given concentration, the greater the concentration given the greater the activity and capacity of phagocytosis, the results indicate that each of the miswak extracts used and tested showed that there was an increase in SPA 62 - 95% and IP 625 - 955 compared to control K (-) and control (+), SPA 52% and 97%, while IP 502 and 1076 (Sofnie Marusin & Chairul, 2012).

Conclusion

Siwak is part of the Sunnah Rasullullah SAW, Siwak is one of the cleaning tools that also has many health benefits, not only for the mouth as we usually know where in the siwak itself has several chemical compounds that are beneficial to the human body, namely in the form of sodium chloride, potassium, sodium bicarbonate and calcium oxide, fluoride, vitamin C. The benefits that exist are proven by research, namely about its benefits for dental health, then the most surprising thing is that siwak can also be an antiseptic and overcomes bacteria, and another research that was slightly mentioned above, namely Siwak contains extracts that have an effect on increasing immune activity in macrophage cells. All can not be separated from the wisdom that was told by Rasullullah SAW about the benefits of miswak for all humans. This research is expected to have beneficial implications for the development of Islamic scientific knowledge, especially through the field of chemistry. This research has limitations in the implementation of takhrij and sharah hadith from the chemical field so that further research in depth is needed. This study recommends broader research into miswak beyond its usefulness as a mouth and tooth cleaner through a chemical approach.

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