TAKHRIJ AND SYARAH HADITH OF CHEMISTRY: STUDY OF THE BENEFITS OF HONEY IN SCIENCE PERSPECTIVE

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Abstract
This research aims to discuss the hadith of Muhammad prophet about benefits of chemical compounds contained in honey. 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 benefits of honey for body and useful as medical treatment of several disease. The conclusion of this research is takhrij and syarah hadith of Muhammad prophet about honey with chemical analyses have been tested so it can be used in accordance with the recommended Prophet Muhammad prophet.

Keywords: Chemistry, Hadith, Honey, Syarah, Takhrij

Introduction
Honey is a compound with composition of carbohydrates that contribute 95-97% of its dry weight that stored and produced in beehives (Namias, 2003). This natural sweetener has been known in history before there were other sweeteners such as sugar (Muh. Hasbi Ash Shiddeqy Holloong, 2015). Honey has many properties including antibacterial, antioxidant, and contains several vitamins such as Thiamin, Riboflavin, and Niacin (Ajibola et al., 2012). Many studies have strengthened the benefits of honey for healthy, even “The Australian Therapeutic Goods Administration” defines honey as a types of medicine. One of the cancer specialists, Glenys Round, doing a test on the benefits of honey for a long time and found that honey has extraordinary healing properties against cancer (Muh. Hasbi Ash Shiddeqy Holloong, 2015).
There is a hadith of the Prophet (ﷺ) with regard to benefit of honey in Shahih Bukhari Number 5277:

حَدَّثَنَا مُحَمَّدُ بْنُ بَشَّارٍ حَدَّثَنَا مُحَمَّدُ بْنُ جَعْفَرٍ حَدَّثَنَا شُعْبَةَ عَنْ قَتَادَةَ عَنْ أَبِي الْمُتَوَكِّلِ عَنْ أَبِي سَعِيدٍ قَالَ جَاءَ رَجُلٌ إِلَى النَّبِيِّ صَلَّى اللََّهُ عَلَيْهِ وَسَلَّمَ فَقَالَ إِنَّ أَخِي اسْتَطْلَقَ بَطْنُهُ فَقَالَ اسْقِهِ عَسَلًا فَسَقَاهُ فَقَالَ إِنِّي سَقَيْتُهُ فَلَمْ يَزِدْهُ إِلَّّا اسْتِطْلُقَ فِي بَطْنٍ صَدَقَ اللهُ عَلَيْهِ وَكَذَبَ بَطْنُ أَخِيكَ تَابَعَهُ النَّضْرُ عَنْ شُعْبَةَ حَدَّثَنَا مُحَمَّدُ بْنُ بَشَّارٍ حَدَّثَنَا مُحَمَّدُ بْنُ جَعْفَرٍ حَدَّثَنَا شُعْبَةَ عَنْ قَتَادَةَ عَنْ أَبِي الْمُتَوَكِّلِ عَنْ أَبِي سَعِيدٍ قَالَ جَاءَ رَجُلٌ إِلَى النَّبِيِّ صَلَّى اللََّهُ عَلَيْهِ وَسَلَّمَ فَقَالَ إِنَّ أَخِي اسْتَطْلَقَ بَطْنُهُ فَقَالَ اسْقِهِ عَسَلًا فَسَقَاهُ فَقَالَ إِنِّي سَقَيْتُهُ فَلَمْ يَزِدْهُ إِلَّّا اسْتِطْلُقَ فِي بَطْنٍ صَدَقَ اللهُ عَلَيْهِ وَكَذَبَ بَطْنُ أَخِيكَ تَابَعَهُ النَّضْرُ عَنْ شُعْبَةَ حَدَّثَنَا مُحَمَّدُ بْنُ بَشَّارٍ حَدَّثَنَا مُحَمَّدُ بْنُ جَعْفَرٍ حَدَّثَنَا شُعْبَةَ عَنْ قَتَادَةَ عَنْ أَبِي الْمُتَوَكِّلِ عَنْ أَبِي سَعِيدٍ قَالَ جَاءَ رَجُلٌ إِلَى النَّبِيِّ صَلَّى اللََّهُ عَلَيْهِ وَسَلَّمَ فَقَالَ إِنَّ أَخِي اسْتَطْلَقَ بَطْنُهُ فَقَالَ اسْقِهِ عَسَلًا فَسَقَاهُ فَقَالَ إِنِّي سَقَيْتُهُ فَلَمْ يَزِدْهُ إِلَّّا اسْتِطْلُقَ فِي بَطْنٍ صَدَقَ اللهُ عَلَيْهِ وَكَذَبَ بَطْنُ أَخِيكَ تَابَعَهُ النَّضْرُ عَنْ شُعْبَةَ

Has told us Muhammad bin Basyar told us Muhammad bin Ja'far told us Syu'bah from Qatadah from Abu Al-Mutawakkil from Abu Sa'id he said; A man came to the Prophet (ﷺ) and said, “My brother has got diarrhea.” The Prophet (ﷺ) said, “Let him drink honey.” The man again (came) and said, “I made him drink (honey) but that made him worse.” the Prophet (ﷺ) said, “Allah has said the Truth, and the abdomen of your brother has told a lie." This hadith is also strengthened by history of Nadlr from Syu’bah.

Based on the explanation above, a research formula was prepared, namely the formulation of the problem, research question, and research objectives (Darmalaksana, 2020a). The formulation of this problem is that there is a hadith from the Prophet (ﷺ) about benefit of honey. The research question is how the hadith from the Prophet (ﷺ) about benefit of honey. The purpose of this research is to discuss the hadith of the Prophet (ﷺ) about benefit of honey.

**Research Methods**

This 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 chemistry analysis (Tim Kimia Analisis Dasar, 2017).

In general, there are two stages of research on hadith, namely takhrij and sharah. Takhrij is the process of extracting a hadith from a hadith book to examine its validity, while sharah is an explanation of the hadith text with a certain analysis (Soetari, 2015). Chemistry itself, as a means of interpretation in this research, is a field of study that studies the structure, arrangement, properties and change of substance (Chang, 2010).
Results and Discussion
At first, a search was made through the application of the hadith on the keyword “honey” until the hadith was found in Shahih Bukhari Number 5277, as previously disclosed.

Table 1. List of Rawi Sanad

<table>
<thead>
<tr>
<th>No.</th>
<th>Rawi Sanad</th>
<th>Birth/Death</th>
<th>Country</th>
<th>Kuniyah</th>
<th>Ulama’s Comments</th>
<th>Circle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Sa’ad bin Malik bin Sinan bin ‘Ubaid</td>
<td>74 H</td>
<td>Medina</td>
<td>Abu Sa’id</td>
<td>Shahabat</td>
<td>Shahabat</td>
</tr>
<tr>
<td>2</td>
<td>Ali bin Daud</td>
<td>108 H</td>
<td>Bashrah</td>
<td>Abu al-Mutawakkil</td>
<td>-Tsiqah -Mentioned in ‘ats tsqaat</td>
<td>Tabi’in among the middle circle</td>
</tr>
<tr>
<td>3</td>
<td>Qatadah bin Da’amah bin Qatadah</td>
<td>117 H</td>
<td>Bashrah</td>
<td>Abu al-Khaththab</td>
<td>-Tsiqah -Tsiqah ma’mun -Tsiqah tsabat -Hafizh</td>
<td>Tabi’in ordinary circle</td>
</tr>
<tr>
<td>4</td>
<td>Syu’bah bin al-Hajjaj bin al-Warad</td>
<td>160 H</td>
<td>Bashrah</td>
<td>Abu Bistham</td>
<td>-Tsiqah tsabat -Tsiqah ma’mun -No one hadith better than him -Amirul Mukminin fil hadits -Tsiqoh hafidz -Tsabat hujjah</td>
<td>Tabi’ut Tabi’in among the elderly</td>
</tr>
<tr>
<td>5</td>
<td>Muhammad bin Ja’far</td>
<td></td>
<td>Qum</td>
<td>Abu Ja’far</td>
<td>-Tsiqah -Hafizh</td>
<td>Tabi’ul Atba’ among the middle circle</td>
</tr>
<tr>
<td>6</td>
<td>An-Nadlir bin Syumail</td>
<td>203 H</td>
<td>Himsh</td>
<td>Abu al-Hasan</td>
<td>-Tsiqah -Tsiqah tsabat -Syaikh</td>
<td>Tabi’ut Tabi’in among the common circle</td>
</tr>
<tr>
<td>7</td>
<td>Muhammad bin Basysyar bin ‘Utsman</td>
<td>252 H</td>
<td>Bashrah</td>
<td>Abu Bakar</td>
<td>-Shaduuq -Shalih -La ba’sa bih -Mentioned in ‘ats tsiqaat -Tsiqah -Hafizh</td>
<td>Tabi’ul Atba’ among the elderly</td>
</tr>
<tr>
<td>8</td>
<td>Imam Al-Bukhari</td>
<td>194 H</td>
<td>Bukhara</td>
<td>Amirul Mukminin fil Hadits</td>
<td>Imam al-hadith</td>
<td>Mudawin</td>
</tr>
</tbody>
</table>
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 shahabat to mudawin, namely ulama’s who record hadiths in the hadith book (Soetari, 1994). According to the science of hadith, the requirement for shahih hadith is that rawi must be positive according to the comments of the ulama’s. If there is a comment from a ulama’s who gives a negative assessment to one of the narrators in the sanad lane, then the hadith is a dhaif hadith (Darmalaksana, 2020d). Shahih hadith are strong hadith while dhaif hadith are weak hadith (Soetari, 1994). Also, requirements for shahih hadith must be continued. If the hadith sanad is broken, then the hadith is a dhaif hadith. The proof 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 ulama’s 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 met (Darmalaksana, 2020d).

The quality of this hadith is shahih. Because, from the side of the narrator, there were no comments from ulama’s who gave negative assessments. Also from the sanad side, it is connected from shahabat to mudawin. Although Muhammad bin Ja’far birth and death year is unknown, it can be predicted between teacher and student meet or contemporarily if it assumed that the average age of ulama’s around 70-90 years. Basically the science of hadith has another parameter in providing reinforcement to hadith. Among other things, hadith are called mutawatir in a very popular sense if the hadith being researched are scattered in several hadith books (Soetari, 2015). The distribution of this hadith acts as syahid and mutabi. Syahid is another hadith of a kind where as mutabi is another sanad (Darmalaksana, 2020d). The rest, hadith so far is the virtue of Islamic practice, so it can be argued even though its status is dhaif (Darmalaksana et al., 2017).

The ulama’s have given syarah, namely an explanation of the content and meaning of the hadith (Darmalaksana, 2020c). In syarah an-Nawawi about hadith of honey narrated by Imam Muslim it is explain that in QS. An-Nahl verse 69 does not explain that honey is a cure for all diseases, but the Prophet Muhammad ﷺ instructed that the man’s disease was only part of the disease that can be cured by honey (Safarsyah, 2019). Abdullah Dabis al-Qarafi in his book argues that there are a lot of benefits contained in honey, including cures digestive organs and bones of the joints, prevent
blockage of arteries and body cells, and maintain skin. Muslim doctor in the golden age of Islam used honey for the treatment of various diseases (Fuad Pasya, 2004). This hadith can also be explained in terms of chemistry. Honey contained several carbohydrates substance such as fructose (41%), glucose (35%), sucrose (1.9%), and dextrins (1.5%). Although the protein contained is relatively small, around 2.6%, but there is various of the amino acid content. Vitamins content are vitamin B1, B2, B3, B6, and vitamin C. The minerals contained include potassium, sodium, calcium, magnesium, iron, copper and phosphorus. The mineral composition in honey has the number of minerals and the ratio of honey close to the composition in human blood. So that, it is an ideal source for the body (M. Dalil, 2016). Important enzymes contained in honey include diastase, invertase, glucose oxidase, peroxidase, and lipase. All of these substances function as the body's metabolism. Honey is useful as an antibacterial because of the content of hydrogen peroxide ($H_2O_2$) whose concentration is determined by the relative levels of glucose oxidase, synthesized by bees, and catalase derived from flower pollen (Mandal, M. D., & Mandal, 2011). In addition, compounds that also act as antibacterials are flavonoids, honey pH, and osmotic pressure in honey.

The mechanism of the antibacterial activity of honey depends on four factors. First, the evaporation of the water content in honey dries out the bacteria. The sugar composition in honey is high enough to inhibit bacterial growth. Second, the pH of honey ranges from 3.2-4.5. A low enough pH can inhibit the growth of most microorganism. Third, hydrogen peroxide ($H_2O_2$) produced from glucose oxidase. In several studies was found that the hydrogen peroxide contained in honey has an important role as an antibacterial. Last, several phytochemical factors for antibacterial activity (Eteraf-Oskouei, T., & Najafi, 2013).

Honey has an inhibitory effect on about 60 species of bacteria, one of which is Staphylococcus bacteria or more specifically, Staphylococcus aerus. These bacteria are found in the skin, skin glands, and nose that can infect humans when their immunity is go down or low (Plata, K., Rosato, A.E., Wegrzyn, 2009). In one study, it was carried out on Staphylococcus aerus bacteria cultured from wounds of patients who had been tested for resistance before. From these studies, it can be concluded that the concentration of honey is quite effective in Staphylococcus aerus (Chauha, P.B., Pratibha, 2012).

Furthermore, to prove that honey is useful as an antioxidant, a study was conducted on consuming honey to increase antioxidants in the blood at the University of
California. In addition, a study at Purdue University was conducted on a mouse to assess honey's ability to increase calcium absorption. From the results of this research, it can be concluded that taking calcium supplements together with honey can accelerate the absorption of calcium by the body.

Honey also widely used in beauty sector. In 1835 in London, word got out that honey can protect and beautify the skin, treat and prevent cracked skin, and effective in the care of lips and hand skin. In 1972, according to Charles Reflon, honey mixed with whole milk can beautify the face and provide fertility to the skin. The mixture of honey and milk contains natural ingredients that are important for the skin, so many beauty industries now include honey in compositions of powder and beauty tools (Abdul Basith Muhammad Sayyid, 2004).

**Conclusion**

Honey is a natural sweetener which has a lot of properties, including being an antibacterial, antioxidant, and assist to body's metabolism. Honey is not a cure for all diseases, but Rasulullah ﷺ instructed that a man's stomachache was only one of the diseases that can be cured by honey. This can be proven from the high sugar content in honey which can inhibit bacterial growth and the content of hydrogen peroxide which functions as an antibacterial. It is expected that this research has beneficial implications for the users of the research results. This research has limitations, that is simple takhrij and sharah hadith so it requires in depth research on the takhrij and syarah hadith of chemistry. This study recommends developing honey through the chemical field as a policy consideration.

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**References**