Necessity of Paying Attention to Sesame Oil Production Safety

Mehroon Shirdeli 1, Saeede Sadat Hosseini 2, Motahareh Sadat Hosseini 1

1. Department of Food Hygiene and Safety, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
2. Department of Microbiology, School of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

ARTICLE INFO

Letter to the Editor

Received: 13 Jan 2019
Accepted: 19 May 2019

Corresponding Author:
Motahareh Sadat Hosseini
hosseinimsh@yahoo.com

How to cite this paper:

Sesame oil, known as Queen Oil, is one of the most nutritious sources. Raw sesame oil contains compounds, such as waxes, free fatty acids, and unsaturated fatty acids. It also contains antioxidants such as vitamin E, gum, small particles, etc. (1, 2). Given the presence of anticancer compounds, such as antioxidants and unsaturated fatty acids, this foodstuff is recommended to patients with cardiovascular diseases (3). However, it should be considered that this oil, similar to all other liquid oils, has high potential for chemical and microbial spoilage due to factors, such as light, exposure to air, temperature, humidity of the environment, and microbial agents. Furthermore, Sesame oil causes hydrolysis and oxidation processes, which increases the necessity of observing the essential points during the production and maintenance. Generally, production of free radicals during the hydrolysis process is very harmful and causes diseases like cancer (4, 5). It should be noted that this oil is produced industrially and manually (in the presence of the customer). Regarding the industrial production, a large proportion of the factors involved in the process of corruption are eliminated or controlled in the purification process. Moreover, some natural antioxidants, such as vitamin E and A, reduced during purification, are added as antioxidants to prevent from corruption. However, in manual or so-called traditional methods that are performed in the presence of the customer, exposure to risk factors increases during the oil production and sometimes oil is packed in non-standard containers. Elimination or reduction of the harmful agents is not possible and ultimately endangers the consumers’ health (6-10). Therefore, it is very important to monitor and pay attention to the traditional production centers and consumers regarding the safety of sesame oil production.

References

Copyright: ©2019 The Author(s); Published by Shahid Sadoughi University of Medical Sciences. This is an open-access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.


