

# Review of: "[Review] The antibacterial activity of *Allium sativum*, *Thymus vulgaris*, *Origanum vulgare*, *Curcuma longa*, *Rosmarinus officinalis*, and *Cinnamomum* species against various antibiotic-resistant strains of bacteria: A Literature Review"

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Potential competing interests: No potential competing interests to declare.

1- The introduction section does not contain enough information, for example, only methicillin-resistant *Staphylococcus aureus* (MRSA) is mentioned, it should be explained more about other bacteria and their resistance to antibiotics.

Also, in the introduction, it should be mentioned how these properties can be improved and more explanation about the strong common properties among these plants that suppress antibiotic resistant bacteria.

2- In the introduction, it should be mentioned how this review article can help the expansion of medical science (new techniques should also be mentioned) and the introduction section should be strengthened.

3- In the Factors Contributing to Antibiotic Resistance section, several things are not mentioned. First, why is it not mentioned about poultry and antibiotics used to maintain the health and growth of poultry?

Second, why has nothing been said about the problems of controlling antibiotics in factories in the food industry, especially dairy, and that these antibiotics are not destroyed by boiling milk?

4- In the Statistics Related to Antibiotic Resistance section, the explanation about *Escherichia* is very general, for example, 60 deaths are not mentioned. Which type of *Escherichia* is it mostly related to?

enterotoxigenic, enteropathogenic, or enterohemorrhagic, etc., which cases are more dangerous and which type is more resistant to antibiotics

5- No source is mentioned at the end of the Herbal Treatment for Antibiotic-Resistant Bacteria section

6- In Table 1, there is no information about essential oils. Is essential oil not effective against bacteria?

7- In Table 1, p-cymene, myrcene,  $\alpha$ -pinene, naringin, luteolin, apigenin, thymonine, rosmarinic acid, carnosolic acid, etc. are mentioned as effective substances of plants against antibiotic-resistant bacteria, but In practice, there is no explanation in the text and their mechanism of action is not clear. Please specify their role in the text of the article

8- In most cases, especially in the case of garlic, the amount of the antibacterial dose is not known, and even in most cases, the mechanism of their action is not known, preferably it should be determined.

9- Various techniques for extracting the effective compounds of medicinal plants is an effective method to increase their performance against antibiotic-resistant bacteria, and there is no mention of the extraction method in this article.

10- It is not mentioned in the results that Encapsulation and microencapsulation methods can be effective by gradually releasing the effective compounds of plants in their antimicrobial power, it is necessary to mention them in the article.

11- For *Salmonella typhimurium*, the way of transmission of meat food has been introduced, but the way of transmission of *C jejuni*, which is semi-raw food, has not been mentioned.

The ways of transmission through food for each bacterium are indicated

12- It has not been mentioned about the side effects and problems of high consumption of these plants in the body.

Does the high consumption of these herbs cause problems?

13- In some parts, italicization of the names of bacteria and plants has not been noticed

14- The results need to be revised