

## INTERDUCTION

Musk is known to have been used in medicine and as a fragrance for over 5000 years.

Muscone (3-methylcyclopentadecanone-1) is the active component in musk, which also is the cause for the odor and has medicinal properties.

This study investigates the antagonistic effect of different natural type { Abdel - Samad Al QurashiMusk (M.Q) , Black Musk (M.A) } and chemical Musk {white Musk (M.B) , on some microorganisms.

The type of yeast *Candida albicans* ATCC 10231, *Candida albicans* HVS and the bacteria strains include *Staphylococcus aureus*, *Bacillus subtilis*, were tested by means of disk diffusion, Results indicated that Musk has inhibitory effects on the growth of study microorganisms Musk contains active substances similar to antibiotic, alkaloids and volatile oils present in them as they have the ability to stop the growth of many microorganisms.

The effect of natural musk was higher than the effect synthetic musk , And the microbes were the most sensitive to musk is *Candida albicans* ATCC 10231.

## Aim

The aim of this study is to investigate the antagonistic effect of Musk as natural and chemical score on different types organisms.

## Method

### 1. Media

- Mueller-Hinton Agar (MHA) for bacteria
- Sabouraud dextrose Agar for yeast (SDA)

### 2. Experimental Study In vitro

Place a sterile cotton swab in the microbes subculture . Streaked in over the surface plate .

### 3. Disk diffusion method

Place disks containing the following musk in center plate.









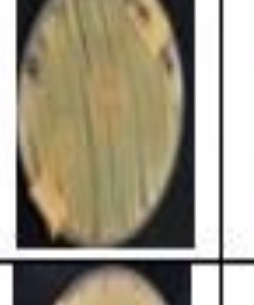







### Incubation

at 37C° for 5 days

## Result

The results showed that the musk had inhibitory effects for the growth of microorganisms. The effect of natural musk on the microorganism was more effective than the chemical musk. The natural black musk gave the highest effect in the size of the inhibition zone as shown in Table 1. , Whereas the most sensitive microorganism is *Candida albicans* ATCC 10231 as indicated by the results in Fig 1.

**Table 1:** The following table shows the effect of different type musk concentrations 100% on microbes types growth.

	MQ	MA	MB	Control
<i>C.albican</i> 2380				
<i>C.albican</i> ATCC				
<i>S. aureus</i>				
<i>B. subtilis</i>				

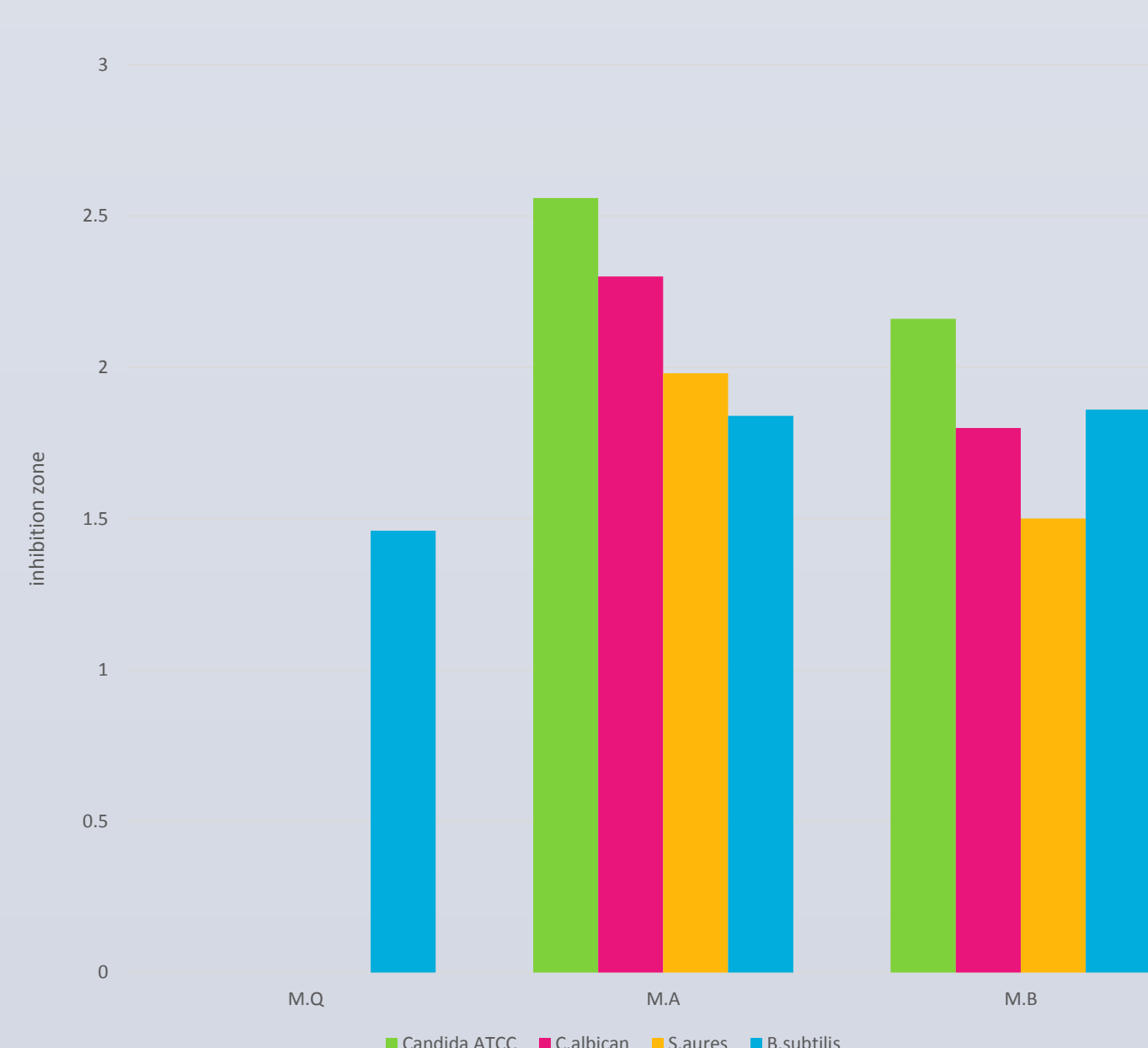


Figure 1 : The following histogram shows the average effect of musk concentrations on microbes types growth

## Discussion

This study is carried out to enhance the inhibition ability of natural and industrial Musk and evaluate the antagonistic effect of different on some pathogenic microorganisms like *C. albicans* , *S.aures* and *B.subtilis* .The results of this study confirmed the effectiveness of natural and chemical musk which contains some of the active substances that have the inhibitory capacity of a wide range of microorganisms .Musk contains active substances similar to antibiotics , alkaloids and volatile oils present in them as they have the ability to stop the growth of many microorganisms. These compounds may affect fungi cells through disrupting their membranes, thereby depriving the substrate or inactivating the enzymes. This leads to cell lysis and death. suggested that polyphenols act on the microbes by disrupting their membranes, depriving the substrate or inactivating the enzymes. Also, Musk extract compounds may inhibit the microorganisms through inhibiting the synthesis of nucleic acids resulting in formation of abnormal proteins.

## CONCLUSION

In the present study, the effort mainly focused on investigate the antagonistic effect of Musk as natural and chemical score on different types organisms. Natural musk gave the highest inhibition zone compared to industrial musk, Especially with *Candida albican*.

Analysis of musk elements was not determined due to the time limitation , We also open the field to work for researchers on different concentrations of musk where the work in this study on the natural concentration of the catch by 100%

Moreover, there are several great applications for use it in medication as antibiotics ,which attract our attention to complete research on this area in the near future.

## Recommendations

1- Al-tahara Musk can be used as a natural antibiotic in the management and control of pathogenic microbes for diseases of the vagina as an alternative to industrial defenses, so it provides a promising source of new drug development.

2-Using different concentrations of Al-tahara Musk and examine the effectiveness of their hostility to microbes under study.

## REFERENCE

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2. Saddiq, A.A., 2011. Potential effect of natural musk and probiotic on some pathogens strain. Int. Res. J. Microbiol, 2(5), pp.146-152

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