The Effectiveness Inhibitory for Mash Alcoholic Seeds Extracts Anti-Fungi Causing Dermal Infections

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Abstract: Against five types of skin fungus for different concentrations of ethanol (75%, 50% and 25% and 10%) for each of Aspergillus niger, Aspergillus Flavus, Aspergillus Fumegatus, Epidermatophyton, Macroporun spp. The diameter hole (6mm) with PAD media, as well as the scheme FTIR, which was Conducted at the Central Environmental Laboratory in the Faculty of Sciences / University of Baghdad, that was effective biological inhibitory clearly and differentiated according to each alcoholic extract versus all the five of skin fungus, has found the highest inhibition of the extract (75% alcohol) the fungus niger, 28mm and fungus Epidermatophyton, 30mm so that in the concentration (50% alcohol) of the fungus (Perecilliu, 24mm) and fungus (Macroporum, 26 mm) While in the concentration (25% alcohol) of fungus (Aspergillus niger, 21mm) and fungus (Epidermatophyton, 20mm). At the concentration (10% alcohol) of the fungus (Aspergillus niger, 20mm) and fungus (Macroporum spp, 17mm). Absorbance scheme (FTIR Diagram) show high peaks of the effective chemical groups and play a role in biological effectiveness and have the ability to redox and the elimination of free radicals, such as group \([\text{CH, CH}_3, \text{CO, NH, C = O, OH}]\) and by absorbance set out in the scheme The presence of aromatic and aliphatic compounds, phenol, amines, aldehyde, alkyl groups and carbonyl, which is Considered removing free radicals and as anti-oxidants, that give healthy and beneficial effect for humans healthy. The results indicate that different effect for Mash ethanolic extracts for infections fungus skin.

Keywords: Mash, skin fungus, biological inhibitory, dermal infections.

1. Introduction

Mash is a common plant name Mung beans (Vignaradiata scientific name classified in the Herbarium, Department of biology University Baghdad), where this plant has been grown in India, China, and East of Asia, Iran, USA, and many country in the World. Also it's mentioned that the facility in Iran resources since, has spread its benefits many people have been used as food for high calorie and contains protein, sodium, potassium, iron, vitamin C, B, E and it is free of cholesterol and is used as a medicine for the contents of the chemical in the treatment of diseases and many private inflammatory skin diseases, for example, blisters acne spread in humans. Mash contains antioxidant compounds, that work to counter free radicals, (effect on human health and skin infections and the cause of aging and sagging skin and wrinkles signs of making Mash keeps the youth and freshness of the skin, where the use of masks useful skin, also acts as a good inflammatory and redness skin, is also used as a solution to clean the skin where it's works to minimize the pores of the many space and works on washed and disinfected, also there are benefits for Mash, because it contains antioxidants and vitamin C, which are working to strengthen the immune system of humans against various malignant diseases and also against the common chest and flu and cold.

Mash and benefits of other works to strengthen the nervous system and muscles to the presence of calcium, magnesium, phosphorus, We loss Mash in mostly table foods it's rich with highly chemical compounds as remedy for many disease.

2. Method and Material

Mash seed were collected from local market and was cleaned well, to remove dust and foreign particles. The seeds were then left on a clean surface to drywell in the room temperature. The seeds were dried under in shade for 3 days, then seeds was grinded to powder by using (Sony 122R grinder) and stored to use in extract, then were prepared four several solutions' From the alcoholic seeds extracts, about Fifty gm of dried seeds of (Vigna radiate seeds) on magnetic stirrer for 24 hrs., then filtrate was concentrated under vacuum, through filter paper then filtrate was concentrated under vacuum. Then method was tried for (conc. 50%, 25%, 10% ethanol extracts), and using the [media PAD] and Laboratory Incubator at (37C) for five days and observed the changes in diameter of all hole for the extracts.

3. Results and Discussion

According to the results (Table 1) and (Figer 1) while show Mash seeds have large area of nutrition and bilateral benefit as food and so medical using, it's clearly the aim of study is achieved and obtained many parameters, that show the activities of several extracts of Mash seeds anti-fungi causing skin infections by expansion the diameter of the hole of PAD media after putting extracts clearly for 3-5 days in some Experiment the presence of active chemical compounds have the main action to occur Variables in hole diameter and give the inhibition effect, that mean Mash is rich with anti-oxidant factors and have ability to work as remedy if it's taken Mainly in human food.
The radius of zones inhibition will be uniformly circular and can be a confluent lawn of growth, so a diameter of inhibition zone can be measured in millimeters. (9) FTIR analysis curve diagram for Mash peak show value of absorbance (cm⁻¹) Groups as following:

FTIR Measurement

<table>
<thead>
<tr>
<th>Ethanol Conc. Extract</th>
<th>Aspergillus niger Diameter</th>
<th>Aspergillus Flavus Diameter</th>
<th>Pseudocillum Diameter</th>
<th>Epidermatophyton Diameter</th>
<th>Macrophorom sp. Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td>28</td>
<td>10</td>
<td>8</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>50%</td>
<td>12</td>
<td>10</td>
<td>24</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>25%</td>
<td>21</td>
<td>10</td>
<td>8</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>10%</td>
<td>20</td>
<td>8</td>
<td>8</td>
<td>12</td>
<td>17</td>
</tr>
</tbody>
</table>

Figure 1: FTIR diagram for Mash seeds

4. Conclusion and Recommendation

Mash is a medicinal plant that play important role in dietary and human immunity for metabolism because it rich with many antioxidant compounds and energy for body, so the advice to get it's in our nutrition.

References


