**4.0 Result**

|  |  |
| --- | --- |
| Test | Parameters |
| Fresh extract | Alk Sap Phl tan earo qty ste fla  - + - + - - + + |
| Dried extract | - + - - + + + + |

Table 4.1 Phytochemical/screening of *sesamum indicum* (Ethonilic extract) of fresh and dried leaves.

The result the obtained in table 1 showed the *sesamum* *indicum* contain almost all the phytochemical constituent of both the fresh and dried extract, but the dried extract had most positive test than the fresh extract.

**Table 2**

Sensitivity to micro-organism ton aqueous textiles of the fresh sesamum indicum leaves.

|  |  |  |
| --- | --- | --- |
| **Microorganism** | **Sensitivity to different concentration** | |
| E-cole  Staphylococcus aureus  Pseudomonas | 200% | 100% | |
| 10mm  12mm  5mm | 8mm  5mm  - | |

The result obtained in table 2 shared that aqueous extract from fresh leaves had strong antimicrobial effect against E-cole at 200 (full concentration) and at 100 dilution and had strong antimicrobial effect against staphylococcus aureus at 200 and mild antimicrobial effect at 100 dilution, while had a mild antimicrobial effect against pseudomonas aeruginosa at 200 and had no effect at 100 dilution.

Table 3sensitivity of microorganism to aqueous extract of the dried *sesamum indicum* leaves.

|  |  |  |
| --- | --- | --- |
| **Microorganism** | **Sensitivity to different concentration** | |
| E-cole  Staphylococcus  Pseudomonas | 200% | 100% |
| 15mm  11.0mm  - | 10mm  5mm  - |

The result obtained in table 3 showed that aqueous extract from dried leaves had a very strong antimicrobial effect against E-cole at 200 and at 100 dilution, had strong antimicrobial effect against staphylococcus at 200 and mild at 100 dilution, while no any effect against pseudomonas aecisuginosa at all dilution

**5.0 Discussion, Conclusion and recommendation**

The aqueous extract of fresh *sesamum indicum* leaves had mildy effect against *Pseudomonas aeruginosa* at all (table 3)

This may reflect the significance of the preservation of some of the active ingredient sesame lignans such as sesaminol and its glucosides which are roater solute in nature and were extracted effectively during extraction processes of the sesamum indicum leaves (Rios & Recio 2005). This finding confirmed the folkloric claim of the antimicrobial effectiveness of locally consumed sesame leaves extract in many areas of the state (Adamawa). However, for solution/extract with a low antimicrobial activity one will need a large concentration or volume made possible Trull holes rather than the disk method with limited applications (Ahamed et al; 2000). It is very effective against bacteria.

**5.1 Discussion**

In this study, the phytochemical constituent of sesamum indicum leaves extract of both extract of the test screening gave positive result but the dried extract analysis had more positive test than the fresh, the fresh extract had a positive test on saponin, tannis, stere, and flav. While negative on some parameters ALK, Phlo, curo, gly, ster and flave. But have negative test on Alk, phy, and tannis. (Table 1).

The finding showed that the aqueous extract of both fresh and dried sesamum indicum leaves had strong antimicrobial effect against E-cole and staphylococcus aureus (Table 2&3)

**5.2 Conclusion**

In conclusion, the aims and objective of this research was achieved. This finding confirmed the folkloric claims of antimicrobial effectiveness of the locally consumed indicum (sesamum) leaves extract in many areas of the state (Adamawa). It is very effective against bacteria. The mean inhibitory effect of the dried extract irrespective of the diluents/solvents used were higher than that of the fresh extract. For solution/extract with a low antimicrobial activity, one will need a large concentration or volume to increase its effectiveness.

**5.3 Recommendations**

There has been a rising interest in the discovery of new antimicrobial and antioxidant agent, the study on the medicinal plant will allow for the demonstration of their physiological activity leading to the development of a more potent drugs with nil or minimal toxicity and high sensitivity especially towards the emerging microbial agents, from the result of this research work, the following are recommended.

1. Sesamum indicum leaves had strong antimicrobial effect against bacterial and can be used as natural therapist against some infection caused by bacteria.
2. In natural therapy against bacterial infection, (pseudomonas aeruginosa) one should use highly concentrated extract from leaves as it is midly effective against the tested sample.
3. Government, Non-governmental organization and pharmaceutical companies should encourage the large scale farming of sesamum inndicum plant.

**Reference**

Ahamed T, Shehu I. A. J, Bankole M. A, Shittu R. K, Adesanyo O. A, Bankole M. N & Ashiru O. A (2009) comparative studies of the crude extract of sesame against some common pathogenic microorganisms, scientific Research & Essay Vol. 4 (6) pp 584-589.

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