

Abstract

Several natural products especially secondary metabolites have formed the basis of medicines, although it's been often difficult to justify the presence of these compounds in the biochemistry of plant; this as posited by Cragg et al., in their presentation on Ethnobotany and the Search for New Drugs, Ciba Foundation Symposium draws a challenge to scientists. It has been suggested that these compounds may have been synthesized by the plants as part of the defense system of the plant; a good example is that plants are known to produce phytoalexins as a response to attack by bacteria and fungi. Cragg and Newmann in Biodiversity: A continuing source or novel drug leads, support this though stating that the compound produced provides an invaluable resource that has been used to find new drug molecules This paper is set to identify the antimicrobial activity of these medicinal plants and their biological effects. The sampled out plant extracts include *Thymus vulgaris*, *Berberis vulgaris* and *Calluna vulgaris* with which inhibition or activation by different chemical catalysts is performed to establish their effects in the tested natural extracts. Experimental design is used where the reagents are determined and chemical reactions performed in the procedures as outlined in the methodology section. The results of the microbial activity based on the level of concentration is then recorded for every crude extracts and the effects of each with different antibiotics against *Staphylococcus aureus*. This study reflects that berberine showed excellent synergistic activity against *Staphylococcus aureus* at relatively low concentration and thus can be used against staphylococcus infections.