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Antimicrobial activity screening of *Astraeus hygrometricus*

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Mushrooms are economical source for commercial, industrial and medical bases and they can be obtained with cultivation or wild harvesting in forest. They include nutrition component, vitamins and minerals, therefore they are used in regular diet in most of the country. Their medicinal and nutritional properties provide immense potential against human health problem. Pathogen infection is one of them and it is becoming significant for multidrug resistance microorganisms. Novel antimicrobial drug development is became crucial, so mushrooms large range screening must be done. *Astraeus hygrometricus* is edible mushroom, but it must be uniquely collected from specific region. In this research, *A. hygrometricus* was collected from Yomra, Trabzon and ethanol extract was prepared for determination of antimicrobial activity. 1.08, 2.16 and 5.40 mg samples were obtained and this activity was investigated against 17 bacteria and 1 fungi by using disk diffusion method. Twelve of them are standard species and they are important for exact determination of broad range antimicrobial potential. These species include *Bacillus*, *Enterobacter*, *Enterococcus*, *Escherichia*, *Klebsiella*, *Listeria*, *Pseudomonas*, *Salmonella*, *Staphylococcus* and *Candida* geniuses. The results were presented that *A. hygrometricus* has antimicrobial potential against eight of them.

Keywords: *Astraeus hygrometricus*, mushroom, antimicrobial activity, disk diffusion method, ethanol extract