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DETERMINATION OF ANTIMICROBIAL ACTIVITY OF *Atropa Belladonna* L.**Merve Ülkü SAYIM**Dokuz Eylül Üniversitesi, Fen Bilimleri Enstitüsü, Biyoloji Bölümü
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biyoloji@gmail.com**Abstract**

Atropa belladonna is a perennial herbaceous plant in the Solanaceae family. The flowers of the plant are greenish purple in color and tube-shaped, the leaves are oval, and the fruits are black in color, shiny, and in a grape-like form. The *A. belladonna* plant, which appears mostly as a semi-shrub with fleshy roots, can reach a length of 100 cm to 150 cm. *A. belladonna*: spreads in Europe, North Africa, and West Asia, and our country, especially in the shady forest clearings of the North Anatolian mountains, the Black Sea region, and the Southern Taurus Mountains. *A. belladonna*, which is also known by names such as "güzellavrat otu, itüzümü, ayıçileği, kurtböğürtleni" among the people, is used in traditional medicine; It is known to be a pain reliever, anti-inflammatory, muscle relaxant, and diuretic. Also, *A. belladonna*; is a plant that contains important alkaloids such as "atropine, scopolamine, belladonnin, hyoscyamine, and apoatropine". Although the highest rate of alkaloids is in its green leaves and fruits, all parts of the plant contain alkaloids. Atropine, which is the main chemical substance of *A. belladonna*, has an important place in pharmacology due to its alkaloids, and its synthetically obtained derivatives have an important place among herbal medicines. Today, extracts obtained from plants are used to combat microbial agents and in the treatment of many diseases. In this study, the antimicrobial activity of *A. belladonna* ethanol extract against 27 strains was determined by using the disc diffusion method. When the results obtained are compared, the highest value was observed in *Staphylococcus aureus* bacteria, which causes many infections in humans, especially one of the hospital-acquired infectious agents.

Keywords: Antimicrobial Activity, Disk Diffusion Test, *Atropa belladonna* L.