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# Pseudomonas Aeruginosa is Resistant to many Antimicrobial Agents and Antibiotics

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### Description

Drug resistance is one of the main problems in the treatment of infections, and coping with this phenomenon and the use of natural substitutes is very important. The use of medicinal fumes in the treatment of many diseases, including microbial diseases and infections in Iran, Turkey and Malaysia has long been popular. Among all of them, fume from burning the Female donkey Dung (Anbar-Nesara) and Peganum harmala or Esfand (in Persian) are much more famous. This study aimed to compare the antimicrobial properties of the smoke of Esfand's grains and smoke of Anbar-Nesara on Pseudomonas aeruginosa and Staphylococcus aureus and its effect on treatment of Bacterial vaginitis.

# Hospitalization

Almost all people during their life are somewhat infected with Staphylococcus aureus, with symptoms ranging from mild to moderated mild infections and life-threatening infections. Pseudomonas aeruginosa is widely distributed and found in soil, water, plants and animals, and is the most important cause of infection in people with immune deficiency. Pseudomonas is gram negative, aerobic and moving bacilli that often form a small number of intestinal and intestinal flora, and opportunistic pathogen in patients with defective disorder. This pathogen is an opportunistic agent for infection, especially in patients with cystic fibrosis and burns. It is also considered as one of the most important factors in nosocomial infections. Pseudomonas aeruginosa is resistant to many antimicrobial agents and antibiotics, and in addition to its intrinsic resistance, it is resistant to drugs in many antibiotics during treatment. However, the emergence of multiple drug resistance strains in various hospitals is increasing, which is one of the most important problems in controlling infection in hospitals. On the other hand, the contamination of hospitals and treatment centers to pathogens is one of the most important issues that can lead to death of patients admitted to these centers. In addition, to exacerbating the illness and death of susceptible patients, increase hospitalization time and, as a result, increase in treatment costs, have a great impact on the economy.

# Antimicrobial

Among the causative agents of nosocomial infections, Pseudomonas bacteria are more important because of the ability to adapt well to the environment and can be present at any location in the hospital. In addition, due to an increase in antibiotic resistance, especially as a multi-drug, this organism has caused many problems in treating infections caused by them. Various drugs are used to treat infectious diseases such as Aminoglycosides, Cephalosporin, Vancomycin and the like, as well as medicinal plants such as Garlic and Thyme. The bacterial resistance to chemical antibiotics limits the ability of physicians to treat some infectious diseases that are often fatal. The annual mortality rate from hospital infections is the sole cause of forty thousand deaths in the United States, which is usually due to the increased bacterial resistance to antibiotics. Therefore, coping with drug resistance phenomenon seems to be of major importance. On the other hand, due to the importance of bacteria such as Pseudomonas aeruginosa in burn and surgery, and the vast resistance of this bacterium, many antibiotics and complications from their use, the use of natural substitutes has been considered more. However, the use of medicinal plants for the treatment of diseases has been using for centuries. Today, although a large proportion of consumable drugs are synthetic, it has been estimated that at least one third of all drug products or plant origin have been or have been transformed after extraction from the plant. Many of the old drugs are already used in the same old form, including in the form of smoke. In more than 50 countries, the use of conventional medicine is even more commonplace among adolescents. One of these medical smokes is smoke from the burning of harmel seed or Esfand (Peganum harmala) and Anbar-Nesara. It is believed that these smokes have more and faster therapeutic effects. Esfand is a traditional herb in Iran and has various uses in traditional medicine. Herbaceous Esfand is a split leaf, large and greenish flowers, whose fruit has a spherical capsule containing black beans, and the seeds have an alkaloid such as harmalin and harmonol. Harmalin has a therapeutic effect with toxic effects, Fungicides and bacteria. This plant belongs to family of Zygophyllaceae that in Iran called Esfand, and has long been considered as one of the most important medicinal plants. For

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this seed, the properties of hypothermic and halocinogen gene are reported. It is traditionally used as an aboriginal plant in Asia and Africa. Various pharmacological studies have been carried out for Esfand, including antimicrobial, anti-tumor, and inhibitor of monoamine oxidase activity. In Iran and Turkey, Esfand's smoke is widely used as an eyesore and an antiseptic agent. On the other hand, animal feces, or in the term "dung or Anbar-Nesara ", are materials in nature that have different uses. Animal stool has been used to treat some human diseases.