

Abstract

Clinical Case Report: Use of Essential Oils in Chronic Dermal Wound

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Currently, there is a trend towards adopting treatments with more natural alternative products over synthetic ones. Essential oils are known for their numerous medicinal properties (from physical to emotional issues) and have been used by the population for millennia. They contain volatile compounds that have therapeutic properties. Their complex chemical composition provides plants with adaptive advantages in their environment and can be used as important active principles in products intended for human treatment. Essential oils also have antioxidant properties, preventing cellular damage and premature aging (such as lemon, lavender, and sweet orange essential oils, for example). Regarding antimicrobial properties, various essential oils have shown activity against bacteria, fungi, and viruses. For example, tea tree oil has been effective against various bacteria and fungi, including methicillin-resistant *Staphylococcus aureus* (MRSA) and *Candida albicans*. Additionally, essential oils are widely used for analgesic purposes, such as peppermint, lavender, eucalyptus, and clove, or essential oils that can reduce anxiety, improve mood, and promote relaxation like lavender, sweet orange, bergamot, and ylang-ylang. Another interesting oil is used in important ingredients in incenses and perfumes, the extract from gum resins obtained from the Burseraceae family trees (*Boswellia* sp.) that have anti-inflammatory and antineoplastic effects. Chemical components like linalool, linalyl acetate, terpinen-4-ol, 1,8 cineole, pinenes, γ -terpinene, borneol, limonene, α -thujene, and menthol are some of the main components found in various essential oils. The most abundant phenol in oregano essential oil is a potent antibacterial agent. The aim was to report an individual clinical case, in home care, requested by a physical educator, of a female patient, leucoderma, 74 years old, residing in the State of São Paulo, presenting a chronic wound in the postero-inferior region of the right leg that was not responding to conventional methods (antibiotics, anti-inflammatories, analgesics, in addition to laser therapy) for more than two months. She also faced respiratory problems, sleep difficulties, mild depression, and reduced mobility. She reported being a controlled diabetic, hypertensive, and having occupational asthma. As a requested choice, aromatherapy was the sought treatment, and a protocol was established considering both physical and emotional aspects, recommending topical and aromatic use of essential oils of oregano, lavender, tea tree, frankincense, in addition to fractionated coconut and rosehip vegetable oils as diluents. After 47 days, the wound had healed, and the patient showed optimism and improved sleep quality. Aromatherapy offers a holistic and gentle approach to treating various conditions, and this case is an inspiring example of how essential oils can make a difference in people's lives. However, more clinical studies with a larger population are necessary to investigate the treatment's efficacy and safety.

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