

Dermatologic drug therapy in adults and adolescents

Francisco Maugeri*

Department of Dermatology, Bondie University, Manaus, Brazil

INTRODUCTION

Dermatologic drug therapy plays a pivotal role in the management of various skin conditions and disorders affecting adults and adolescents. Skin health is integral to overall well-being and quality of life and dermatologic drug therapy is an evolving field that continues to provide innovative solutions for a wide range of dermatological issues. This article aims to provide a comprehensive overview of dermatologic drug therapy, highlighting common skin conditions, treatment options and the importance of a multidisciplinary approach to dermatological care.

DESCRIPTION

Common dermatologic conditions

Acne: Acne is one of the most prevalent dermatological conditions affecting adolescents and adults. It is characterized by the formation of comedones, pustules, papules and nodules due to the obstruction of hair follicles and excess oil production. Treatment options for acne include topical and oral medications such as retinoids, antibiotics and hormonal therapies. Isotretinoin, an oral retinoid, is often prescribed for severe or persistent acne cases.

Eczema (atopic dermatitis): Eczema or atopic dermatitis, is a chronic inflammatory skin condition characterized by itchy, red and scaly rashes. Topical corticosteroids, calcineurin inhibitors and emollients are commonly used for managing eczema. Advances in biologic therapies have also shown promise in providing relief for severe cases.

Psoriasis: Psoriasis is an autoimmune skin disorder that leads to the rapid growth of skin cells, resulting in red, scaly plaques and discomfort. Topical treatments, phototherapy and systemic medications, such as immunosuppressants and biologics, are employed to manage psoriasis symptoms. Biologics, in particular, have transformed the treatment landscape for psoriasis by targeting specific immune pathways.

Dermatitis (contact and atopic): Contact dermatitis, which results from exposure to irritants or allergens and atopic dermatitis, a genetic condition, both manifest as inflamed, itchy skin. Treatment often includes identifying and avoiding triggers, along with topical corticosteroids, antihistamines and immunomodulators.

Address for correspondence:

Francisco Maugeri,
Department of Dermatology, Bondie University,
Manaus, Brazil
E-mail: maugeri@yahoo.com

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Topical dermatologic drug therapy

Topical corticosteroids: Topical corticosteroids are frequently used to reduce inflammation and alleviate symptoms in various dermatological conditions. They come in different strengths, from mild to potent and their application must be supervised by a healthcare professional to avoid side effects, such as skin thinning or stretch marks.

Topical retinoids: Topical retinoids, derived from vitamin A, are commonly employed for the treatment of acne and photoaging. They work by promoting skin cell turnover and reducing the formation of comedones. Adherence to a skincare routine and sun protection is essential while using retinoids, as they can make the skin more sensitive to UV radiation.

Topical antibiotics: Topical antibiotics are used to combat bacterial infections in the skin, such as acne. They work by inhibiting the growth of bacteria and reducing inflammation. However, the overuse of antibiotics can contribute to antibiotic resistance, making them less effective over time.

Calcineurin inhibitors: Calcineurin inhibitors like tacrolimus and pimecrolimus are used to manage inflammatory skin conditions like eczema. They suppress the immune response in the skin, reducing inflammation and itching. They are especially useful in sensitive areas like the face and groin where topical steroids may be less suitable.

Topical antifungals: Topical antifungal medications are used to treat fungal skin infections such as ringworm and athlete's foot. These medications help to eradicate the fungal pathogens causing the infection, relieving symptoms like itching and redness.

Systemic dermatologic drug therapy

Oral antibiotics: Oral antibiotics, such as doxycycline and minocycline, are commonly prescribed for moderate to severe acne cases. They work by reducing the bacteria on the skin and have anti-inflammatory properties. Long-term use of antibiotics should be monitored carefully to prevent antibiotic resistance.

Oral retinoids: Oral retinoids like isotretinoin (accutane) are reserved for severe, recalcitrant acne cases. They work by reducing oil production and preventing the formation of acne lesions. However, they come with potential side effects, including dry skin, mucous membrane dryness and teratogenic effects, making strict monitoring and contraception necessary during treatment.

Immunosuppressants: Immunosuppressants such as cyclosporine and methotrexate are used for autoimmune skin conditions like psoriasis and atopic dermatitis. These drugs work by suppressing the immune response responsible

for the inflammation in the skin. Close monitoring for potential side effects is required during treatment.

Biologic therapies: Biologic therapies, also known as biologics, represent a revolutionary approach to treating immune-mediated dermatological conditions. These medications are targeted to specific molecules involved in the inflammatory response. Biologics have transformed the treatment landscape for psoriasis and other skin disorders, offering effective relief with fewer systemic side effects.

Importance of a multidisciplinary approach

Dermatologic drug therapy often requires a multidisciplinary approach to provide comprehensive care to patients. Dermatologists work in conjunction with primary care physicians, pharmacists and other specialists to ensure the best outcomes for patients. Here are some key aspects of a multidisciplinary approach:

Patient education: Dermatologists and healthcare professionals should educate patients about their skin condition, treatment options, potential side effects and the importance of compliance with the prescribed regimen.

Primary care involvement: Primary care physicians play a crucial role in coordinating care and addressing underlying health issues that may contribute to skin conditions, such as diabetes, obesity or autoimmune diseases.

Pharmacists' expertise: Pharmacists are valuable resources in ensuring that patients understand how to properly use dermatologic medications and manage any potential drug interactions or side effects.

Mental health support: Skin conditions can have a significant impact on a person's mental and emotional well-being. Integrating mental health professionals into the care team can help patients cope with the psychological aspects of their condition.

Support groups: Support groups and patient advocacy organizations can provide emotional support, information and a sense of community for individuals living with dermatological conditions.

CONCLUSION

Dermatologic drug therapy is a dynamic and evolving field that plays a pivotal role in the management of various skin conditions affecting adults and adolescents. The choice of treatment depends on the specific dermatological condition, its severity and individual patient factors. A multidisciplinary approach, involving dermatologists, primary care physicians, pharmacists, mental health professionals and support groups, is vital to ensuring comprehensive care for patients. With ongoing research and development, the field of dermatology continues to advance, offering innovative treatments and improving the quality of life for those with skin conditions.