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"Advancing Treatment in Atopic Dermatitis: A Comprehensive Review of Clinical Efficacy, Safety, and Comparative Insights Into Corticosteroids, Calcineurin Inhibitors, and Phosphodiesterase-4 Inhibitors as Topical Therapies"

Atopic dermatitis (AD) is a pervasive and multifaceted dermatological disorder causing daily distress to afflicted individuals worldwide. This comprehensive review synthesizes the historical and contemporary advancements in therapeutic strategies, offering a critical analysis of their efficacy, safety profiles, and adaptability. The enduring role of topical corticosteroids in managing AD is examined, acknowledging their potent anti-inflammatory properties alongside their potential adverse side effects, particularly in extended usage. The article explores the utilization of topical calcineurin inhibitors like tacrolimus and pimecrolimus, highlighting their novel anti-inflammatory pathways while also scrutinizing concerns over potential malignancies that relegate them to second-line therapy. The present investigation features the emergence of crisaborole, a phosphodiesterase four inhibitor. Its innovative mode of action, benign safety profile, and applicability to mild and moderate AD are thoroughly evaluated. The review also includes challenges, particularly cost considerations, which constrain accessibility and necessitate nuanced implementation in therapeutic regimens. This study underscores the need for persistent investigation, teamwork, and innovations in managing AD. In this regard, AD requires a united approach between clinicians, researchers, affected individuals, and policymakers to refine patient-focused treatment and develop precise, economical strategies to address this chronic and frequently life-altering health condition.