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RELATIONS OF TOPICAL CORTICOSTEROIDS ON BLOOD GLUCOSE LEVEL

Introduction

Topical corticosteroids are commonly used in dermatology to treat inflammatory skin conditions including psoriasis, dermatitis, and eczema. Prolonged usage or application of potent corticosteroids, even if they are mostly designed for local action, may result in systemic uptake. By increasing glucose output and decreasing insulin sensitivity, corticosteroids can have an impact on carbohydrate metabolism. Consequently, prolonged application of topical corticosteroids may have an impact on glucose levels in the blood, especially in those who have diabetes mellitus [1, 2].

Goal

The goal of this research is to examine the link between prolonged topical corticosteroid therapy and variations in blood glucose levels using data from the published scientific literature.

Material and methods of researh

This study was carried out as a literature review, using keywords such as topical corticosteroids, blood glucose, hyperglycemia, and systemic absorption, scientific papers were chosen from databases like PubMed, Google Scholar, and ScienceDirect. The study included peer-reviewed case reports, evaluations, and clinical investigations that examined the systemic metabolic effects of topical corticosteroids. The collected research was evaluated to see if there were any potential mechanisms or clinical data connecting the usage of topical corticosteroids to changes in glucose metabolism [3, 4].

The results of the research and their discussion

Topical corticosteroids may be absorbed through the skin and enter systemic circulation. The absorption rate is influenced by a variety of variables, including the drug's strength, the length of treatment, the area of skin being treated, and the state of the skin barrier. By boosting gluconeogenesis in the liver and decreasing glucose absorption in peripheral tissues, corticosteroids can raise blood glucose levels. These consequences could result in increased blood glucose levels and insulin resistance. According to numerous studies, prolonged usage of strong topical corticosteroids might raise the risk of hyperglycemia, especially in diabetic individuals. According to some recorded instances, diabetic individuals' insulin treatment needed to be modified after using strong topical corticosteroids [4].

However, the majority of research suggests that, when used properly, topical corticosteroids have relatively few systemic metabolic consequences. Longer treatment times, bigger treatment areas, and occlusive dressings that improve drug absorption raise the risk. Diabetes mellitus patients, children, and theelderly may be more vulnerable to systemic consequences. For this reason, when topical corticosteroids are used for extended periods, close monitoring and proper prescription methods are crucial [5].

Mechanism of Corticosteroids Influence on Blood Glucose

After applying corticosteroids, it is absorbed systemic, which leads to increased hepatic gluconeogenesis and reduced insulin sensitivity and elevates blood glucose levels [5].

Table 1 – Factors Influencing Systemic Absorption of Topical Corticosteroids

Factor	Effect
High-potency corticosteroids	Increased systemic absorption
Large application area	Higher drug penetration
Prolonged treatment duration	Greater cumulative exposure
Occlusive dressings	Enhanced skin permeability

Conclusion

Long-term application of topical corticosteroids might result in systemic absorption and possible metabolic consequences, such higher blood glucose levels. Patients with diabetes and patients who are receiving high-potency or long-term treatment may be more vulnerable to these effects, even if they are rare when medications are used correctly. To reduce the likelihood of systemic side effects, it is advised to use topical corticosteroids judiciously under careful supervision.

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ASSESSMENT OF PSORIASIS SEVERITY AND ITS CORRELATION WITH PATIENT LIFESTYLE AND HISTORY

Introduction

Psoriasis, as a chronic inflammatory skin disease driven by an immune response, is one condition that never seems to end, significantly affecting the life of the patient. It manifests as an overactive proliferation of skin cells, leading to the characteristic signs of red, thick, and scaly plaques on the skin surface. It may vary from mild to severe, with the severity of the disease being influenced by a combination of genetic, environmental, and lifestyle factors. It is important to understand the depth of the impact of these factors to formulate a treatment plan to transform the life of the patient.

Goal

To properly measure the level of the patient's psoriasis, as well as explore the connection of the patient's psoriasis with other aspects, which may eventually become the key to the effective