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Autologous Fat Transplantation for Dispersed Steroid Decay and Hypopigmentation: A Promising Treatment Approach

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Introduction

Dispersed steroid decay and hypopigmentation are common side effects associated with the long-term use of corticosteroids. These effects can result in atrophic and hypopigmented skin changes, causing significant cosmetic concerns for individuals affected. Autologous fat transplantation, also known as fat grafting, has emerged as a promising treatment approach for addressing these issues. This article explores the rationale, procedure and potential benefits of autologous fat transplantation in the management of dispersed steroid decay and hypopigmentation. Dispersed steroid decay refers to the thinning of the skin and loss of subcutaneous fat that occurs as a result of prolonged and excessive use of corticosteroids. This condition often leads to skin atrophy, visible blood vessels and increased fragility. Concurrently, hypopigmentation can develop, characterized by a loss or reduction in the skin's natural pigment, resulting in lighter patches or a generally paler appearance. These conditions can occur in various areas of the body, including the face, hands and other exposed areas [1].

Autologous fat transplantation involves the transfer of fat tissue from one area of the body (donor site) to another (recipient site) to restore volume and improve the appearance of the target area. The procedure typically follows these stepsThe effectiveness of topical corticosteroid injections in treating keloids or hypertrophic scars has been well-documented. However, a common complication associated with these injections is the development of hypopigmentation and subcutaneous atrophy. Although these complications often resolve on their own within a year, they can have a significant impact on the emotional well-being of patients when improvement is not observed [2].

Discussion

To address subcutaneous atrophy and skin hypopigmentation resulting from corticosteroid injections, various treatment options have been explored. These include saline injections, autologous fat grafting, hyaluronic acid filler injections, poly-L-lactic acid injections, surgical excision and more recently, autologous blood injections. Among these options, autologous fat transplantation has shown anecdotal evidence as an effective treatment for severe subcutaneous atrophy and large areas of the body. It is important to note that this case report represents a single patient's experience and further research and larger studies are needed to establish the efficacy and safety of autologous fat transplantation as a standard treatment for severe steroid atrophy and skin hypopigmentation. However, these initial findings suggest that autologous fat transplantation holds promise as a potential therapeutic option for individuals experiencing these complications. Despite the promising outcomes observed in this case report, it is essential to approach autologous fat transplantation with caution and conduct further research to establish its efficacy, safety and long-term outcomes. Large-scale studies and controlled trials are needed to validate the findings and determine the ideal patient selection criteria, optimal techniques and potential complications associated with this procedure [3].

This case report describes a patient with severe steroid atrophy and skin hypopigmentation in multiple regions of the body. The patient experienced significant improvement following a single autologous fat transplantation procedure. This case is noteworthy as it demonstrates the successful use of autologous fat transplantation in treating multiple sites of severe steroid atrophy and skin hypopigmentation simultaneously in a single patient. To the authors' knowledge, this is the first report documenting such a successful outcome using autologous fat transplantation for these specific conditions. The most common donor sites for autologous fat transplantation include the abdomen, thighs, or buttocks. The fat tissue is gently suctioned out using a cannula and a low-pressure liposuction technique. The harvested fat is then processed to obtain purified fat cells for transplantation.

The recipient site, which is the area affected by dispersed steroid decay and hypopigmentation, is prepared by cleaning and numbing the area. Tiny incisions or punctures are made to allow for the introduction of the transplanted fat cells. The processed fat cells are carefully injected into the recipient site using a fine cannula or syringe. The fat is distributed evenly to achieve a natural and aesthetically pleasing result. Multiple injections may be required to ensure sufficient volume replacement and optimal outcomes. Autologous fat transplantation addresses the volume loss associated with dispersed steroid decay, restoring fullness and improving the contours of the affected areas. The transplanted fat cells integrate with the existing tissues, providing long-lasting results. The presence of transplanted fat cells can help improve the overall quality of the skin affected by dispersed steroid decay [4,5].

Conclusion

The fat cells contain stem cells and growth factors that promote tissue regeneration, collagen production and increased vascularity, leading to improved skin texture and thickness. Autologous fat transplantation can also help correct hypopigmentation by providing a source of melanocytes, the pigment-producing cells. The transplanted fat cells may contain melanocytes, which can restore natural pigmentation and help achieve a more uniform skin tone. Autologous fat transplantation is a minimally invasive procedure that involves using the patient's own tissue, reducing the risk of allergic reactions or rejection. It also has a relatively short recovery period and minimal scarring compared to more invasive surgical interventions.

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Conflict of Interest

No conflict of interest.

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References

1. Arora, Navneet, Ehraz Mehmood Siddiqui and Sidharth Mehan. "Involvement of adenylate cyclase/cAMP/CREB and SOX9/MITF in melanogenesis to prevent vitiligo." *Mol Cell Biochem* 476 (2021): 1401-1409.
2. Wang, Hui Miao, Li Qun Qu, Jerome PL Ng and Wu Zeng, et al. "Natural Citrus flavanone 5-demethylnobiletin stimulates melanogenesis through the activation of cAMP/CREB pathway in B16F10 cells." *Phytomedicine* 98 (2022): 153941.
3. Liu, Li, Mengsi Fu, Siran Pei and Liangliang Zhou, et al. "R-Fluoxetine increases melanin synthesis through a 5-HT1A/2A receptor and p38 MAPK signaling pathways." *Int J Mol Sci* 20 (2018): 80.
4. Shin, SeoYeon, JaeYeon Ko, MinJeong Kim and Nuri Song, et al. "Morin induces melanogenesis via activation of MAPK signaling pathways in B16F10 mouse melanoma cells." *Molecules* 26 (2021): 2150.
5. Annunziata, Francesca, Cecilia Pinna, Sabrina Dallavalle and Lucia Tamborini, et al. "An overview of coumarin as a versatile and readily accessible scaffold with broad-ranging biological activities." *Int J Mol Sci* 21 (2020): 4618.

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