

Atrophie Blanche

Atrophie blanche is a distinct dermatologic phenomenon characterized by a pattern of scarring that arises following the healing of chronic, poorly healing ulcers, primarily due to underlying vascular pathology. The condition is often associated with livedoid vasculopathy, a disorder marked by the development of painful purpuric lesions that progress into punched-out ulcers. These ulcers typically form on the lower legs, especially around the ankles and tops of the feet.

The lesions are notably slow-healing and may result from insufficient circulation or poor wound healing, contributing to the formation of scars with specific features. Once the ulcer has healed, the resultant scar—termed atrophie blanche—is typically smooth, white, and displays a polygonal or star-shaped configuration. Additionally, these scars often exhibit surrounding telangiectasias and hyperpigmentation, which further characterize the condition.

Clinical Features and Epidemiology

Atrophie blanche predominantly affects middle-aged women and is often exacerbated by factors such as hot climates and pregnancy. It is frequently seen in patients with chronic venous insufficiency, a condition that impairs venous return from the lower extremities, leading to stagnation of blood and increased venous pressure. This condition causes venous ulcers that are particularly prone to slow healing, setting the stage for atrophie blanche formation after the ulceration resolves. The exact mechanisms underpinning atrophie blanche are not fully understood but are thought to involve a combination of vascular damage, inflammation, and impaired skin repair processes.

Although atrophie blanche is commonly associated with chronic venous insufficiency, other systemic factors such as hypercoagulability, systemic lupus erythematosus, and diabetes mellitus have also been reported to contribute to the condition. Furthermore, genetic predispositions and autoimmune mechanisms may play a role in its pathogenesis, though further studies are needed to clarify these associations.

Treatment Strategies

The management of atrophie blanche is primarily focused on preventing the formation of ulcers, improving blood flow, and controlling pain. The cornerstone of therapy involves addressing the underlying vascular issues that predispose the skin to ulceration and poor healing. Compression therapy, aimed at enhancing venous return and reducing edema, is a key intervention. Compression stockings or bandages are typically used to provide external support to the lower limbs, thereby improving circulation and preventing further ulceration.

In addition to compression, smoking cessation is a crucial component of management, as smoking contributes to vascular damage and impaired wound healing. Medications used to improve circulation and prevent thrombosis include antiplatelet agents (e.g., aspirin, dipyridamole, pentoxifylline) and anticoagulants (e.g., heparin, warfarin). These treatments aim to reduce microvascular occlusion and enhance perfusion to the affected tissues.

In cases where the condition is resistant to standard therapies, second-line treatments may be considered. These include nifedipine, a calcium channel blocker that improves blood flow, and sulfasalazine, an anti-inflammatory agent that may help reduce the inflammatory component of the disease. Intravenous immunoglobulins and danazol have been used in some refractory cases, likely due to their immunomodulatory properties. Hyperbaric oxygen therapy and phototherapy (PUVA), which use ultraviolet light to reduce inflammation and promote tissue healing, have also shown benefit in certain patients. Lastly, doxycycline, an antibiotic with anti-inflammatory properties, may be considered in some cases to modulate inflammation and promote healing.

Conclusion

Atrophie blanche is a chronic, vascular-related skin condition primarily characterized by the formation of smooth, white scars after poorly healing ulcers. It is most commonly seen in individuals with chronic venous insufficiency, but other underlying conditions may also contribute to its development. While treatment is focused on improving circulation, preventing further ulcer formation, and controlling pain, a range of pharmacologic and therapeutic interventions may be utilized based on the severity and persistence of symptoms. Early recognition and management are crucial to prevent complications and improve the patient's quality of life.

References

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