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PLAIN LANGUAGE SUMMARY

Biologics-induced cutaneous pseudolymphomas: a narrative review with an illustrative case of brodalumab-induced pseudolymphoma

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Biologic medicines are advanced treatments that target specific parts of the immune system and are widely used to manage chronic inflammatory skin diseases such as psoriasis. These drugs have greatly improved disease control and quality of life for many patients. However, by modifying immune pathways, biologics can sometimes cause unexpected or 'paradoxical' reactions.

This article focuses on a rare side effect called cutaneous pseudolymphoma. Cutaneous pseudolymphomas are benign (non-cancerous) skin reactions in which immune cells accumulate in the skin and form lesions that can closely resemble skin lymphomas, both in appearance and under the microscope. Although they look alarming, pseudolymphomas usually behave in a harmless way and often resolve once the triggering factor is removed.

Through a review of published medical reports, we summarize what is currently known about cutaneous pseudolymphomas caused by biologic therapies. Most reported cases have occurred in patients treated with biologics that block tumor necrosis factor (TNF), a key inflammatory molecule. Much more rarely, similar reactions have been described with newer biologics that target the IL-17 pathway.

We also present a new and illustrative clinical case: a young woman with psoriasis who developed a persistent, violaceous skin plaque shortly after starting brodalumab, a biologic drug that blocks the IL-17 receptor. A skin biopsy showed a dense collection of immune cells consistent with a T cell pseudolymphoma but without signs of cancer. Importantly, the lesion completely disappeared after brodalumab was stopped, strongly supporting a causal link between the drug and the skin reaction. To our knowledge, this is the first reported case of pseudolymphoma associated with brodalumab.

This review highlights several key messages for patients and clinicians. First, biologics-induced pseudolymphomas are very rare. Second, when a new or unusual skin lesion appears during biologic treatment, especially if it looks different from the patient's usual disease, a skin biopsy is essential. Third, distinguishing pseudolymphoma from true skin lymphoma requires careful evaluation of clinical history, pathology findings and follow-up. Finally, in most cases, stopping the offending drug leads to complete resolution, and aggressive treatments are not needed.

Greater awareness of this uncommon reaction can help ensure early diagnosis, avoid unnecessary anxiety, and guide safe and effective management for patients receiving biologic therapies.