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Off-Label Use of Accutane for Persistent Cyst Formation near a Surgical Excision Site: A Case Report

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ABSTRACT

Recurrent cyst formation at a prior excision site can present a therapeutic challenge, particularly when the lesion is located on the face and the patient wishes to avoid additional procedural intervention. Complete surgical excision remains the standard definitive treatment for epidermal inclusion cysts; however, recurrence may occur when the cyst wall is incompletely removed. In cases where patients decline re-excision, clinicians may need to consider individualized medical management, especially when concurrent acneiform disease is present. We present the case of a 44-year-old male with Fitzpatrick type VI skin who developed persistent cyst formation near a prior left cheek excision site. The patient declined repeat excision, incision and drainage, and intralesional therapy initially, preferring medical treatment. He was managed with oral isotretinoin and adjunctive therapies, with substantial clinical improvement and an approximately 75% reduction in cyst size by follow-up. This case highlights the potential role of individualized, off-label isotretinoin therapy in select patients with persistent cystic facial lesions who decline definitive surgical treatment, while also emphasizing the need for further studies evaluating medical alternatives for recurrent cyst formation.

***Keywords:** Cyst; Dermatology; Accutane; Off-label Therapy; Triamcinolone Acetonide; Benzoyl Peroxide; Excision; Trimethoprim-Sulfamethoxazole.*

Introduction

Epidermal inclusion cysts are among the most common benign cutaneous cysts and may occur anywhere on the body, including cosmetically sensitive areas such as the face [1]. They often present as slow-growing, fluctuant or firm subcutaneous nodules and may contain keratinous debris, sometimes with a visible central punctum [1]. Although many epidermal inclusion cysts are asymptomatic, patients may seek treatment when lesions become painful, inflamed, recurrent, infected, or cosmetically concerning [1].

Complete surgical excision with removal of the cyst wall is generally considered the definitive treatment because incomplete removal can increase the risk of recurrence [2]. Recurrent lesions can be particularly challenging, especially when they occur near a prior surgical site or in an anatomic location where scarring and cosmetic outcomes are important. Case literature has described repeated recurrence after incomplete excision, reinforcing the importance of adequate removal and histopathologic assessment when clinically indicated [2]. For recurrent or difficult cystic lesions, surgical approaches remain commonly used, while conservative therapies have generally shown limited effectiveness [3].

Inflamed epidermal inclusion cysts are also frequently managed with individualized approaches depending on the degree of inflammation, infection, symptoms, and patient preference. Treatment may include observation, intralesional corticosteroid injection, incision and drainage, antibiotics when infection is suspected, or delayed excision after inflammation improves [4]. In patients who decline procedural therapy, however, management becomes less

clearly defined, and evidence-based nonoperative options remain limited.

This case is further complicated by the patient's concurrent acne vulgaris, including comedonal papules, inflammatory papules, pustules, and scarring. Current acne guidelines support the use of topical agents, oral antibiotics, and isotretinoin in appropriately selected patients, particularly for severe, scarring, refractory, or treatment-resistant acne [5]. Isotretinoin is a systemic retinoid that reduces sebaceous gland size and sebum production, influences follicular keratinization, and has anti-inflammatory effects, making it one of the most effective therapies for severe acne vulgaris [6]. Beyond its approved role in severe acne, isotretinoin has also been discussed in the literature for several off-label dermatologic applications, although such use requires careful clinical judgment and risk-benefit assessment [7]. Intralesional corticosteroids may also be used for selected inflamed cystic or acneiform lesions, although procedural therapies may not be acceptable to all patients [8]. Because oral isotretinoin carries important adverse-effect considerations, including mucocutaneous dryness, laboratory abnormalities, psychiatric considerations, and strict pregnancy-prevention requirements, individualized counseling and monitoring are essential [9].

This article presents the case of a patient with persistent cyst formation near a prior cyst excision site who declined repeat excision and was treated with off-label isotretinoin therapy in the setting of concurrent acne vulgaris. The case highlights the importance of patient-centered decision-making, individualized treatment planning, and further investigation into nonsurgical options for recurrent cystic facial lesions.

Case Presentation

The patient was a 44-year-old male who initially presented to the dermatology clinic for a cyst in the left central buccal cheek (Figure 1). He was seen in May 2025, at which time he was prescribed doxycycline monohydrate 100 mg capsule BID. The patient was given clindamycin phosphate 1% topical solution once daily and a benzoyl peroxide 10% topical cleanser. The patient was assessed to have a Type VI skin type as well. The impression at the time was that since the patient had a cyst excision on the left cheek the previous year, this was a likely recurrence of the cyst at the original site. The patient declined an intralesional injection, incision and drainage, and excision as he preferred to try medications first. The patient was also diagnosed with acne vulgaris due to numerous comedonal papules, inflammatory papules, pustules, and scars. These were distributed on the left central malar cheek, right superior buccal cheek, right superior lateral buccal cheek, right central malar cheek, and left superior medial buccal cheek. The patient was then started on oral isotretinoin (Accutane) 40 mg daily for 30 days.

Figure 1: *The two cysts present at the patient's initial clinic presentation in May 2025.*

The patient was then re-evaluated in the clinic for the cyst in November 2025 (Figure 2). He stated that the cyst was better. There was no drainage, odor, redness, pain, itchiness, or swelling reported. Upon examination, it was noted that he had angular cheilitis on the right inferior vermillion lip and left inferior vermillion lip and was prescribed Triamcinolone acetonide 0.1% topical ointment to be applied to the cracked lips.

Figure 2: *Angular cheilitis and cyst improvement noted at the November 2025 follow-up visit.*

The patient then followed up with the clinic in December 2025. The patient was noted to have persistent comedonal papules, inflammatory papules, pustules, and scars (Figure 3). The patient was then started on a 2-month course of 30 mg Trimethoprim-Sulfamethoxazole daily. His angular cheilitis seemed to be improving with the Triamcinolone ointment, and his facial cyst size was reducing (Figure 3).

Figure 3: *Reduction in cyst size noted at the December 2025 follow-up visit.*

The patient was then evaluated in January 2026. The inflammatory lesions of acne vulgaris seemed to begin receding (Figure 4). Ketoconazole 2% topical cream was added to his medication regimen for angular cheilitis.

Figure 4: *Reduction in angular cheilitis and cyst size noted in January 2026.*

When the patient presented to the clinic in February 2026, despite the reduction in size, the cyst was still present (Figure 5). An incision and drainage procedure was performed on the left central buccal cheek. The patient was sent home with both an oral and topical antibiotic.

Figure 5: *Left facial cyst noted during the February 2026 follow-up visit.*

The patient then presented to the clinic in March 2026. The patient stated that he was satisfied and that since receiving treatment with oral isotretinoin, he had experienced a significant 75% reduction in facial cyst size (Figure 6). The patient was then requested to follow up in 3 months for a skin check.

Figure 6: *Significant reduction in cyst size noted at the March 2026 follow-up visit.*

Figure 7: *Comparison of facial cyst size before and after Accutane treatment.*

Discussion

This case describes a 44-year-old male with persistent cyst formation near a prior left cheek excision site who preferred medical management over additional procedural intervention. Complete excision remains the standard definitive treatment for epidermal inclusion cysts because recurrence is more likely when the cyst wall is incompletely removed. However, patient preference, lesion location, cosmetic concerns, and willingness to undergo additional procedures may all influence management decisions.

The patient initially declined intralesional injection, incision and drainage, and repeat excision. In this setting, the treating dermatologist pursued a patient-centered approach using medical therapy, including oral isotretinoin, in the context of concurrent acne vulgaris. The patient's acneiform findings, including comedonal papules, inflammatory papules, pustules, and scarring, provided a reasonable clinical context for isotretinoin therapy. Although isotretinoin is not an established or FDA-approved treatment specifically for recurrent epidermal inclusion cyst formation at an excision site, its effects on sebaceous gland activity, follicular keratinization, and inflammation may have contributed to improvement in this patient's cystic facial lesion.

By follow-up, the patient reported substantial improvement and an approximately 75% reduction in cyst size. This clinical response suggests that isotretinoin may be a useful adjunctive or alternative option in carefully selected patients with persistent cystic facial lesions, particularly when acne vulgaris is also present and the patient declines definitive procedural treatment. However, it is important to interpret this outcome cautiously. The patient also received other therapies during the treatment course, including topical agents, oral antibiotics, and later incision and drainage, which may have contributed to improvement. Therefore, causality cannot be attributed to isotretinoin alone.

This case also highlights the importance of shared decision-making. While re-excision may have provided definitive management, the patient's preference to avoid additional procedures was central to the treatment plan. In cosmetically sensitive areas such as the face, even benign recurrent cysts may cause significant distress due to visible scarring, persistent swelling, or asymmetry. A patient-centered plan should balance the likelihood of definitive cure, cosmetic outcome, adverse effects, and the patient's treatment goals.

There are limitations to this case. As a single-patient report, the findings cannot be generalized to all patients with recurrent epidermal inclusion cysts. Additionally, the improvement occurred in the setting of multimodal therapy, making it difficult to isolate the effect of isotretinoin. Future studies are needed to determine whether isotretinoin has a reproducible role in reducing persistent cystic lesions, especially in patients with concurrent acne vulgaris or recurrent cystic lesions who are poor candidates for surgery or decline additional procedures.

Conclusion

Recurrent cyst formation near a prior excision site can be difficult to manage, particularly when patients decline definitive surgical treatment. This case describes a patient with a persistent facial cystic lesion and concurrent acne vulgaris who experienced substantial clinical improvement after treatment that included off-label oral isotretinoin. While complete excision remains the standard treatment for epidermal inclusion cysts, this case suggests that isotretinoin may have a potential adjunctive role in carefully selected patients with persistent cystic facial lesions, especially when acneiform disease is also present. Further research is needed to compare surgical and medical approaches, clarify which patients may benefit from nonsurgical therapy, and better define the safety and efficacy of off-label isotretinoin use in recurrent cystic lesions.

Statement of Informed Consent

Informed consent was obtained from the patient described in this case report.

Conflicts of Interest

The authors declare no conflict of interest and received no specific funding for this work.

References

1. Weir CB, St.Hilaire NJ. Epidermal Inclusion Cyst. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023. Available from: https://www.ncbi.nlm.nih.gov/books/NBK532310/
2. Li J, Qian M, Huang X, Zhao L, Yang X, et al. Repeated recurrent epidermoid cyst with atypical hyperplasia: A case report and literature review. Medicine (Baltimore). 2017; 96: e8950.
3. Sipos J, Neymeyer J, Weger V, Schneider-Burrus S. Surgical therapy of recurrent genital cysts. J Dtsch Dermatol Ges. 2025; 24: 266-268.
4. Meister H, Taliercio M, Shihab N. A retrospective chart review of inflamed epidermal inclusion cysts. J Drugs Dermatol. 2021; 20: 199-202.
5. Reynolds RV, Yeung H, Cheng CE, Cook-Bolden F, Desai SR, et al. Guidelines of care for the management of acne vulgaris. J Am Acad Dermatol. 2024; 90: 1006.e1-1006.e30.
6. Paichitrojjana A, Paichitrojjana A. Oral isotretinoin and its uses in dermatology: A review. Drug Des Devel Ther. 2023; 17: 2573-2591.
7. Nickle SB, Peterson N, Peterson M. Updated physician's guide to the off-label uses of oral isotretinoin. J Clin Aesthet Dermatol. 2014; 7: 22-34.
8. Jakhar D, Kaur I. Intralesional drainage injection of triamcinolone acetonide for inflamed epidermal inclusion cysts. J Am Acad Dermatol. 2018; 79: AB254.
9. Goldstein JA, Comite H, Mescon H, Pochi PE. Isotretinoin in the treatment of acne: Histologic changes, sebum production, and clinical observations. Arch Dermatol. 1982; 118: 555-558.

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