

SHORT COMMUNICATIONS

Clinical Observation: Patient with Difficult-to-Treat Psoriasis Experiences Skin Clearing After Removal of Silicone Breast Implants

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INTRODUCTION

Psoriasis is a chronic inflammatory skin disease affecting an estimated 2-3% of the population.¹ Incidence is bi-modally distributed, with the majority of cases developing at ages 30 to 39 and 60 to 69.⁴ However, psoriasis prevalence is increasing and there are several potential external triggers.¹ For instance, smoking, alcohol, obesity, and psychological stress are associated with higher incidence and more severe disease.^{2,3} What specifically triggers psoriasis can vary patient-to-patient. We present a case of psoriasis that developed shortly after a patient underwent insertion of silicone breast implants (SBI) and cleared after the implants were removed.

CASE REPORT

A 44-year-old female with a history of *BRCA1* positivity had a double mastectomy and reconstruction with the insertion of SBI in June 2017. She developed psoriasis in 2018 and was started on etanercept in 2019 after failing topical therapy. There was initial improvement on etanercept, but then

presented to our clinic in November 2021 with flaring disease on the scalp, arms, and vulva. She had bariatric surgery in December 2021, but her psoriasis did not subsequently improve. She then failed treatment with secukinumab before switching to ixekizumab in December 2022 (**Figure 1**). The ixekizumab led to minimal improvement. Psoriasis plaques remained on the scalp, shins, arms, and under her breasts. She also endorsed diffuse arthralgias. Rheumatology evaluation concluded she did not have psoriatic arthritis.

The patient decided to have her SBI removed and undergo a panniculectomy in hopes this would relieve some irritation she was experiencing between skin folds. She discontinued ixekizumab in January 2024 in preparation for her surgeries, during which her psoriasis flared. Her implants were removed in March 2024, and her psoriasis greatly improved within one month of removal, including in non-intertriginous areas, despite remaining off the ixekizumab. In April 2024, few thin plaques remained on her scalp and elbows. She remains off any systemic psoriasis therapies.

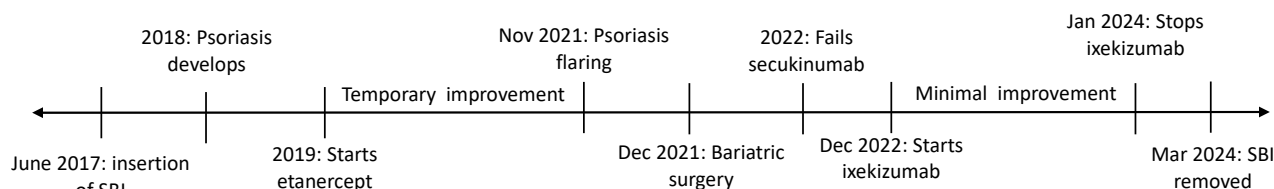


Figure 1. Timeline of the patient's psoriasis, treatments, and SBI implantation and removal.

DISCUSSION

To our knowledge, this is the first report of psoriasis developing, then clearing, following the insertion and removal of SBI. A 2018 cross-sectional study of 24,651 SBI recipients and 98,604 controls using computerized healthcare databases found that SBI recipients were more likely to be diagnosed with autoimmune/rheumatic disorders (OR of 1.22; 95% CI 1.18–1.26). Psoriasis prevalence was higher in SBI recipients compared to SBI-free women, affecting 5.25% and 4.66% respectively (OR of 1.13; 95% CI 1.05–1.21).⁵ A plausible explanation for these findings is that silicone based adjuvants have been demonstrated to trigger a local cellular immune-mediated inflammatory reaction and the production of various autoantibodies.⁵

A separate review explored systemic symptom-relief after SBI removal in patients with non-specific complaints such as arthralgia, myalgia, fatigue and even rash.⁶ These non-specific complaints have been coined “autoimmune/inflammatory syndrome induced by adjuvants (ASIA) due to silicone implant incompatibility syndrome (SIIS).” 75% of patients with these complaints experienced improvement after explant.⁶

The immunogenicity of SBI is currently inconclusive. Our case adds to the literature

on the possibility that SBI could be contributory to inflammatory disease. Obtaining a history of SBI may be important in a patient with inflammatory skin disease.

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References:

1. Olejnik-Wojciechowska J, Boboryko D, Bratborska AW, et al. The Role of Epigenetic Factors in the Pathogenesis of Psoriasis. *Int J Mol Sci.* 2024;25(7):3831. doi:10.3390/ijms25073831
2. Naldi L, Chatenoud L, Linder D, et al. Cigarette Smoking, Body Mass Index, and Stressful Life Events as Risk Factors for Psoriasis: Results from an Italian Case–Control Study. *J Invest Dermatol.* 2005;125(1):61–67. doi:10.1111/j.0022-202X.2005.23681.x
3. Zhu K, Zhu C, Fan Y. Alcohol consumption and psoriatic risk: A meta-analysis of case–

- control studies. *J Dermatol.* 2012;39(9):770-773. doi:10.1111/j.1346-8138.2012.01577.x
4. Iskandar IYK, Parisi R, Griffiths CEM, Ashcroft DM, the Global Psoriasis Atlas. Systematic review examining changes over time and variation in the incidence and prevalence of psoriasis by age and gender*. *Br J Dermatol.* 2021;184(2):243-258. doi:10.1111/bjd.19169
5. Watad A, Rosenberg V, Tiosano S, et al. Silicone breast implants and the risk of autoimmune/rheumatic disorders: a real-world analysis. *Int J Epidemiol.* 2018;47(6):1846-1854. doi:10.1093/ije/dyy217
6. De Boer M, Colaris M, Van Der Hulst RRWJ, Cohen Tervaert JW. Is explantation of silicone breast implants useful in patients with complaints? *Immunol Res.* 2017;65(1):25-36. doi:10.1007/s12026-016-8813-y