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### Biologic treatment for recalcitrant psoriasis in a Puerto Rican pediatric population



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**Background:** There are limited biologic therapies approved for pediatric patients with moderate to severe psoriasis.

**Methods:** A single-center retrospective study of patients with moderate to severe psoriasis who were treated with biologics was conducted at our outpatient clinics. The following data was collected: age, gender, comorbidities, psoriasis morphology, previous systemic therapy, reason for discontinuation, and/or switch to other systemic treatment.

**Results:** There were 11 pediatric patients, mean age 7 years treated with biologic agents in our center. Etanercept was the most frequent biologic treatment prescribed as first line (n = 8). In 5 cases biologic therapy was switched to another class. Three patients initially treated with etanercept had to switch to another biologic treatment (ustekinumab) due to lack of response. Of these, 2 were switched to a third biologic (ixekizumab) due to loss of efficacy. 2/3 patients initially treated with adalimumab had to switch to another biologic. All patients treated with ixekizumab (2/2) responded to treatment. One patient treated with adalimumab developed anti-TNF $\alpha$ -induced psoriasis. No other adverse effects were reported.

**Conclusions:** Patients had to switch biologic medication to achieve response to treatment, demonstrating the severity and recalcitrant nature of our patient's psoriasis. Although the sample size is small, findings suggest biologic medications are effective and safe in managing severe pediatric psoriasis. More studies are needed to generate additional data about these medications' safety and efficacy profile when treating severe psoriasis in the pediatric

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### Dermal microinfusion of tranexamic acid using a tattoo machine to treat melasma



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**Background:** Melasma is a frequent acquired hyperpigmentation disorder that affects mostly 30–40-year-old women. It is characterized by irregular brown macules in areas exposed to ultraviolet light. Melasma is a chronic disorder, refractory to treatment, with frequent relapses. A novel drug delivery technique that uses a tattoo machine (MMP) has been successfully used to treat other skin disorders. We tested this technique to treat melasma.

**Objective:** We present four cases of melasma treated with dermal microinfusion of tranexamic acid using the MMP technique. **Patients and Methods** We infused tranexamic acid (Transamin 5%) using the Cheyenne dermopigmentation machine (MT.Derm, Germany; Anvisa-Brazilian Health Ministry—80281110016) with a 27-needle cartridge (Anvisa 80281110015). The patients underwent three monthly sessions. We photographed the lesions before the first, and one month after the last session. **Discussion** There is a need for more effective treatments for melasma, a highly prevalent and disfiguring condition. The MMP technique delivers drugs into the dermis through 10- $\mu$ m orifices without causing any thermal damage, as seen with ablative laser treatments. Tranexamic acid promotes skin lightening because of its anti-plasmin effect which reduces arachidonic acid and alpha-MSH within keratinocytes. Microneedling also promotes dermal remodeling which can contribute to improving melasma. **Conclusion** Dermal microinfusion of tranexamic acid using MMP may be a promising new treatment for melasma.

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17270

### Patient perceptions of esthetic benefit: Comparing benign lesion clearance to other common esthetic procedures



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**Background:** Regular consumers of esthetic procedures such as neurotoxins, fillers, and body contouring report high motivation to clear common benign lesions for esthetic reasons. Despite the availability of established methods of lesion destruction or removal, new research with these patients indicated a high monetary value assigned to improved methods of clearing their skin lesions.

**Demographics:** 405 US adults diagnosed with a common benign lesion, ages 25-75, 44% female.

**Methods:** An online survey was used to recruit experienced esthetic procedure patients who were previously diagnosed with a common benign lesion. The breakdown of lesions was as follows: 100 patients with seborrheic keratosis, 104 with sebaceous hyperplasia, 100 with common warts, and 101 with common nevi.

**Results:** 91% of the surveyed patients rated their motivation to seek a better solution for their lesion clearance as "very" to "extremely" motivated, with an average rating of 4.5 on a 5.0 scale. Top quality-of-life motivators include feeling embarrassed/self-conscious, skin feeling uncomfortable and unsightly lesion appearance. Furthermore, when asked to compare the dollar value of an improved method of benign lesion clearance to common esthetic procedures, lesion elimination value exceeded that of neurotoxins, fillers, body contouring, and skin tightening. Benign lesion clearance represents relatively greater cosmetic utility to patients than high value esthetic procedures, and represents a large segment of an esthetic practice population.

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17467

### Angioimmunoblastic T-cell lymphoma mimicking DRESS syndrome: Case report and possible pitfalls



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Angioimmunoblastic T-cell lymphoma (AITL) accounts for 2% of non-Hodgkin lymphomas and usually has an aggressive course. Clinical picture includes systemic manifestations such as fever, lymphadenopathies, generalized hepatosplenomegaly and polyclonal hypergammaglobulinemia, cutaneous manifestations occurring in 50% of cases. A 52-year-old Caucasian woman presented with fever and a pruritic maculopapular rash. She had started taking a weight loss supplement 3 weeks before. On physical examination, elastic lymphadenopathies were present in several chains; blood tests revealed peripheral eosinophilia, increased aminotransferases and Epstein-Barr virus reactivation. Diagnosis of drug rash with eosinophilia and systemic symptoms (DRESS) syndrome was assumed and the patient was started on prednisone 1 mg/kg/day, with marked improvement. Two months later, the patient returned to the emergency room with recurrence of fever and lymphadenopathies. The hypothesis of a lymphoproliferative disease was now considered, and excisional biopsy of a lymph node confirmed the diagnosis of AITL. The patient was started on chemotherapy and is waiting bone marrow autologous transplant. DRESS syndrome is a type IV hypersensitivity reaction usually developing 2-6 weeks after drug intake. Clinically, it is characterized by the presence of a maculopapular rash, fever, internal organs involvement, atypical lymphocytes in peripheral blood smear and generalized lymphadenopathies. These manifestations can also be observed in AITL, making the differential diagnosis between these two entities a challenge. In addition, association with drug ingestion, viral reactivation and T-cell receptor monoclonal rearrangements are described in both conditions. Therefore, the index of suspicion for this entity should be high, particularly in cases of relapse or therapeutic failure.

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