

Topical JAK inhibitors for Treating AA in Children and Adolescents

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Study: Bayarat et al. Topical Janus kinase inhibitors for the treatment of pediatric alopecia areata. J Am Acad Dermatol 2017; 77(1):167-169

The JAK inhibitors include drugs such as tofacitinib and ruxolitinib. At least 7 studies in the last 2 years have shown benefit for the oral JAK inhibitors in treating alopecia areata. However, one must keep in mind that these drugs are not without potential side effects. A risk of infection, including serious ones must be kept in mind with this particular immunosuppressant. Other side effects need to also be considered.

Topical JAK inhibitors may be safer. However, it's not clear exactly how well the topical JAK inhibitors truly work. There have been a few published reports in the medical literature regarding the potential benefits of topical JAK inhibitors. Last year, I shared information of a study showing eyebrow regrowth in a patient with alopecia universalis treated with 0.6 % ruxolitinib cream. Now, a new study reports the outcome of 6 individuals ranging in age from 4-17 who were treated with topical JAK inhibitors. 6 of the 7 individuals had advanced forms of alopecia areata (totalis and universalis) and one had alopecia areata.

TOPICAL RUXOLITINIB

Two patients (age 4 and 17) were treated with topical 1 % ruxolitinib to the eyebrows. Neither one experienced eyebrow regrowth although one did experience eyelash growth when the medication was prescribed to the upper eyelid skin. The four year-old had blood tests performed and all were normal.

TOPICAL TOFACITINIB

Four patients (age 3, 5, 13 and 15) were treated with topical 2 % tofacitinib. 2 of the 4 patients had significant improvement of their scalp alopecia and 1 other had just a slight 20% improvement of his eyebrows

Comment:

This exciting study suggests that about 50 % of young patients with alopecia areata treated with topical JAK inhibitors may have some degree of benefit. This study is small and certainly a larger study is needed to confirm this. However, this study is encouraging given that these individuals had severe forms of alopecia areata to start with and treatment outcomes would therefore have been predicted to be worse. More studies are needed before topical JAK inhibitors can be given widespread use.