STUDENTS' CORNER
LETTER TO THE EDITOR

Baricitnib: From rheumatoid arthritis to alopecia areata

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Madam, Alopecia Areata (AA) is a common relapsing dermatological autoimmune disorder characterised by nonscarring patches of hair loss of the scalp and/or body. It is found in approximately 0.1% to 0.2% of the general population and affects individuals of all ages and skin types.[1] The way the illness manifests itself varies from one sufferer to the next; from hair loss in distinct, well-circumscribed circular or oval spots on the scalp or body, to complete loss of hair on the entire scalp (Alopecia Totalis) and to the entire body (Alopecia Universalis).[1] Alopecia may substantially alter the individual`s physical appearance, thus having a detrimental effect on their life, making them more prone to develop psychiatric comorbidities as a consequence.

Currently there is no FDA authorised treatment for the underlying condition of AA, thus all therapies are aimed at preventing hair loss and encouraging regeneration. Therefore, there is dire need to fill the vacuum that we are presented with. In an attempt to find a solution for the current predicament, two randomised, placebo-controlled phase 3 studies (BRAVE-AA1 and BRAVE-AA2) have shown excellent outcomes with considerable hair regrowth in AA patients treated with Baricitinib, an oral Janus Kinase (JAK) 1 & 2 inhibitor which is prescribed to treat Rheumatoid Arthritis (RA). Baricitinib thwarts the progression of the illness by inhibiting the communication of immune cells involved in damaging hair follicles.

SALT scores of <20 were found in 38.8% of patients treated with baricitinib 4 mg, 22.8% of patients treated with baricitinib 2 mg, and 6.2% of patients treated with placebo in BRAVE-AA1.Patients report a significant decrease in SALT score after treatment with the drug; from a starting score of 50, reaching 20 in a span of 36 weeks. Similarly, the percentages for BRAVE-AA2 were 35.9% with 4 mg baricitinib, 19.4% with 2 mg baricitinib, and 3.3 percent with placebo.[2] Acne, elevated creatine kinase levels, and increased LDL and HDL levels have all been reported as side effects of baricitinib usage.[2]

To substantiate this study, a report by Chen D et al. documented complete remission of AA in a patient with diagnosed anti-MDA5 antibody-positive DM with AA. The patient was treated with baricitinib to combat the former, however, in a surprising turn of events, the drug also served to completely cure AA.[3]

Keeping in mind the prevalence of this disease and the lack of definite solutions, it is imperative to provide an unambiguous and absolute treatment option. Thus, it is essential that an FDA approved drug to treat AA be made available for patients; the drug baricitinib's use in treating AA and trial is therefore an important step towards the same. Hence, a much more detailed study and longer trials are crucial to evaluate baricitinib's effectiveness and safety in the treatment of alopecia areata in various age groups, especially in adolescent and children because of the greater occurrence of AA in young population.[4]

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References

1. Strazzulla LC, Wang EHC, Avila L, Lo Sicco K, Brinster N, Christiano AM, et al. Alopecia areata: Disease characteristics, clinical evaluation, and new perspectives on pathogenesis. J Am Acad Dermatol 2018;78:1-12. doi: 10.1016/j.jaad.2017.04.1141.
2. King B, Ohyama M, Kwon O, Zlotogorski A, Ko J, Mesinkovska NA, et al. Two Phase 3 Trials of Baricitinib for Alopecia Areata. N Engl J Med 2022;386:1687-99. doi: 10.1056/NEJMoa2110343.
3. Chen D, Huang W, Zhongjie W, Feifeng R, Luo L, Jun Z, et al. Good efficacy achieved by baricitinib in the treatment of anti-MDA5 antibody-positive dermatomyositis with alopecia areata. Rheumatology (Oxford) 2022;61:e221-3. doi: 10.1093/rheumatology/keac084.
4. Simakou T, Butcher JP, Reid S, Henriquez FL. Alopecia areata: A multifactorial autoimmune condition. J Autoimmun 2019;98:74-85. doi: 10.1016/j.jaut.2018.12.001.

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