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# The Efficacy of Baricitinib as a Treatment Option for Alopecia, In Terms of Promoting Hair Regrowth and Improving Patient Reported Outcomes

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# The efficacy of Baricitinib as a treatment option for Alopecia, in terms of promoting hair regrowth and improving patient reported outcomes

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## INTRODUCTION

- Alopecia is an autoimmune disease that affects millions of people worldwide and is characterized by hair loss in varying forms.
- Current treatment modalities have mixed success rates and often present with side effects that limit long time use.
- This condition has a large psychological impact on the patient and those with the disorder are more likely to experience anxiety and depressive episodes in their lifetime.
- This poster seeks to address whether Baricitinib, a novel Janus Kinase inhibitor, is effective in treating severe Alopecia.

## Background

- As someone who also suffers from Alopecia, this question has fueled a large interest in terms of finding effective treatment options.
- Answering these questions is important as it can largely improve the quality of life of patients who suffer from this disease.

## METHODS

### Overview

An analysis of relevant and recent publications was performed to analyze the efficacy of Baricitinib in promoting hair regrowth in alopecia patients. This was done through database searches that include PubMed, Springer, Elsevier.

### Search term strategy

Key terms used during this study include "Baricitinib" AND "Baricitinib efficacy" AND "Baricitinib outcomes" AND "Baricitinib hair growth" AND "Baricitinib alopecia"

### Inclusion Criteria

This study used clinical trials, reviews, meta analysis, systematic reviews from the past 5 years, 2018-2023. Papers were written in English.

### Exclusion criteria

Articles older than 5 years of age and not written in English were excluded.

### Types of Studies

Different types of studies were used that include clinical trials, review articles, meta analysis and systematic reviews.

### Outcome measures

Studies were evaluated in order to assess their effectiveness in promoting hair regrowth in severe cases of Alopecia. Clinical study results and targeted demographics were used for this review.

## Methods

Database searched	Date of Search	Keyword string	Number of results
PubMed	1/4/23	Baricitinib	1497
		Baricitinib efficacy	499
		Baricitinib outcomes	477
		Baricitinib hair growth	8
		Baricitinib Alopecia	138
PubMed	1/5/23	Baricitinib alopecia areata	124
		Alopecia treatments	16697
		Janus kinase inhibitor alopecia	369
		Allopecia treatments	16697
		Janus kinase inhibitor alopecia	369
		BRAVE trial	149

## RESULTS



Fig 1: Clinical photographs of patients with alopecia areata at baseline and after 36 weeks and 52 weeks of treatment with Baricitinib 4 mg in BRAVE-AA1.<sup>7</sup>

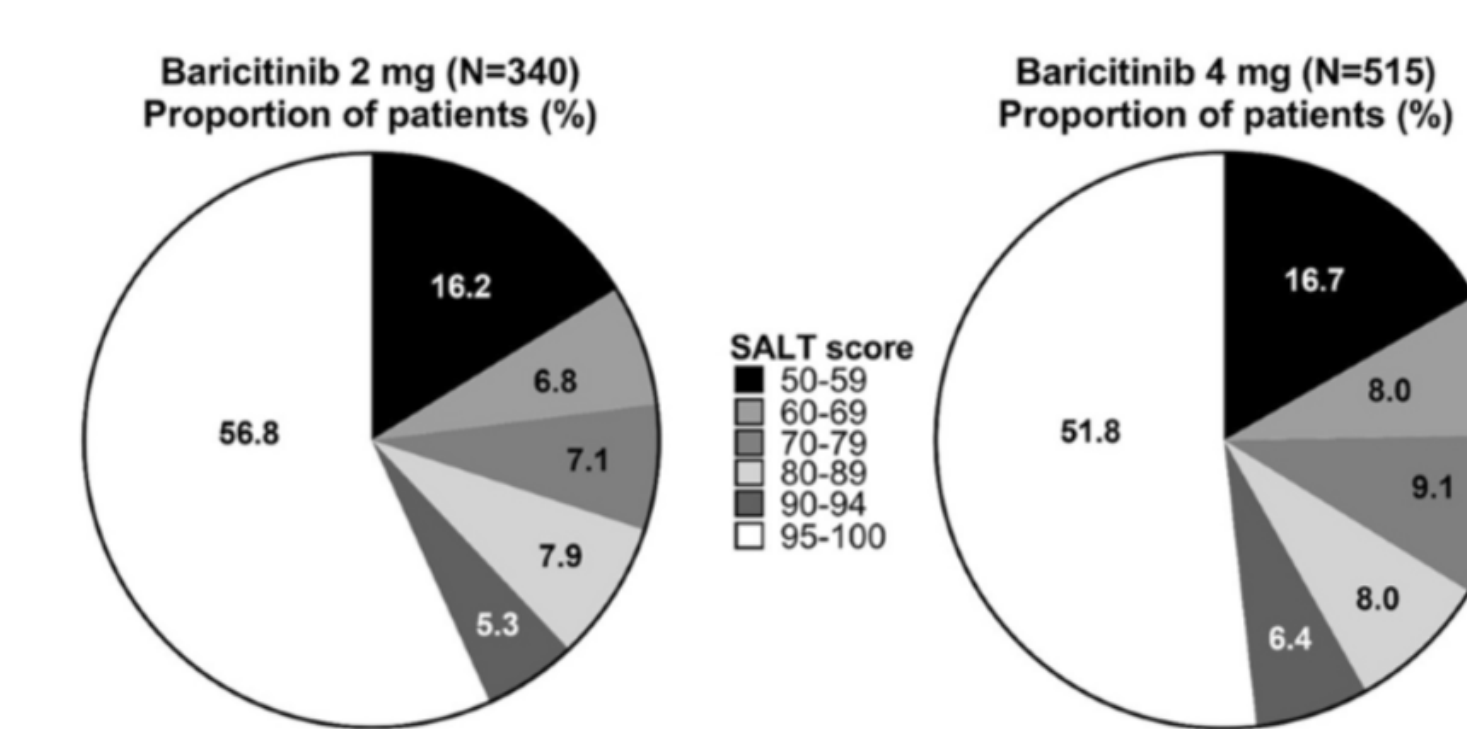


Fig 2: Distribution of baseline SALT score across Baricitinib 2 mg and 4 mg treatment arms.<sup>10</sup>

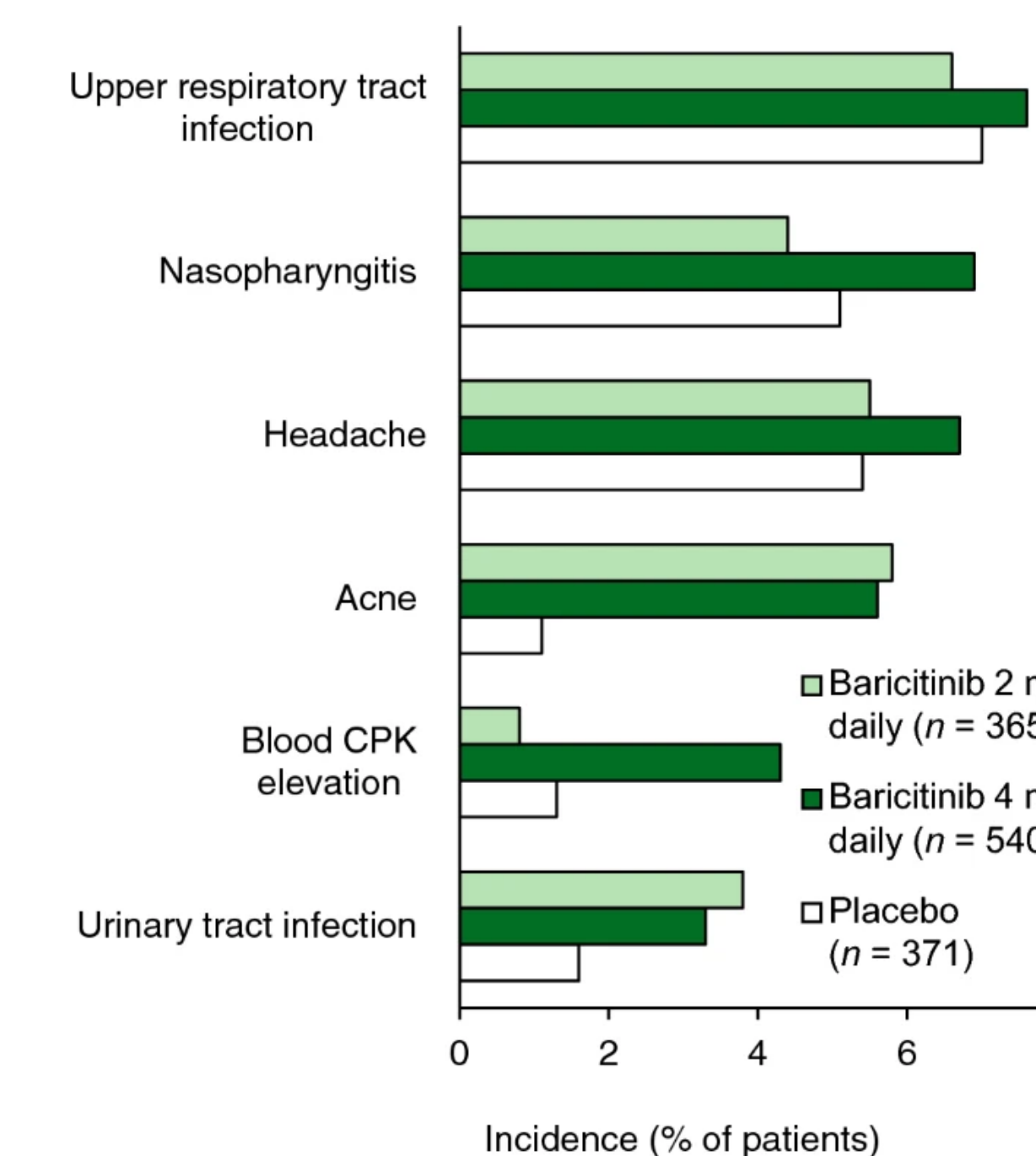


Fig 3: Treatment-emergent adverse events of any grade occurring in  $\geq 3\%$  in any patient group in the pooled analysis of the BRAVE-AA1 and BRAVE-AA2 trials.<sup>1</sup>

## Results

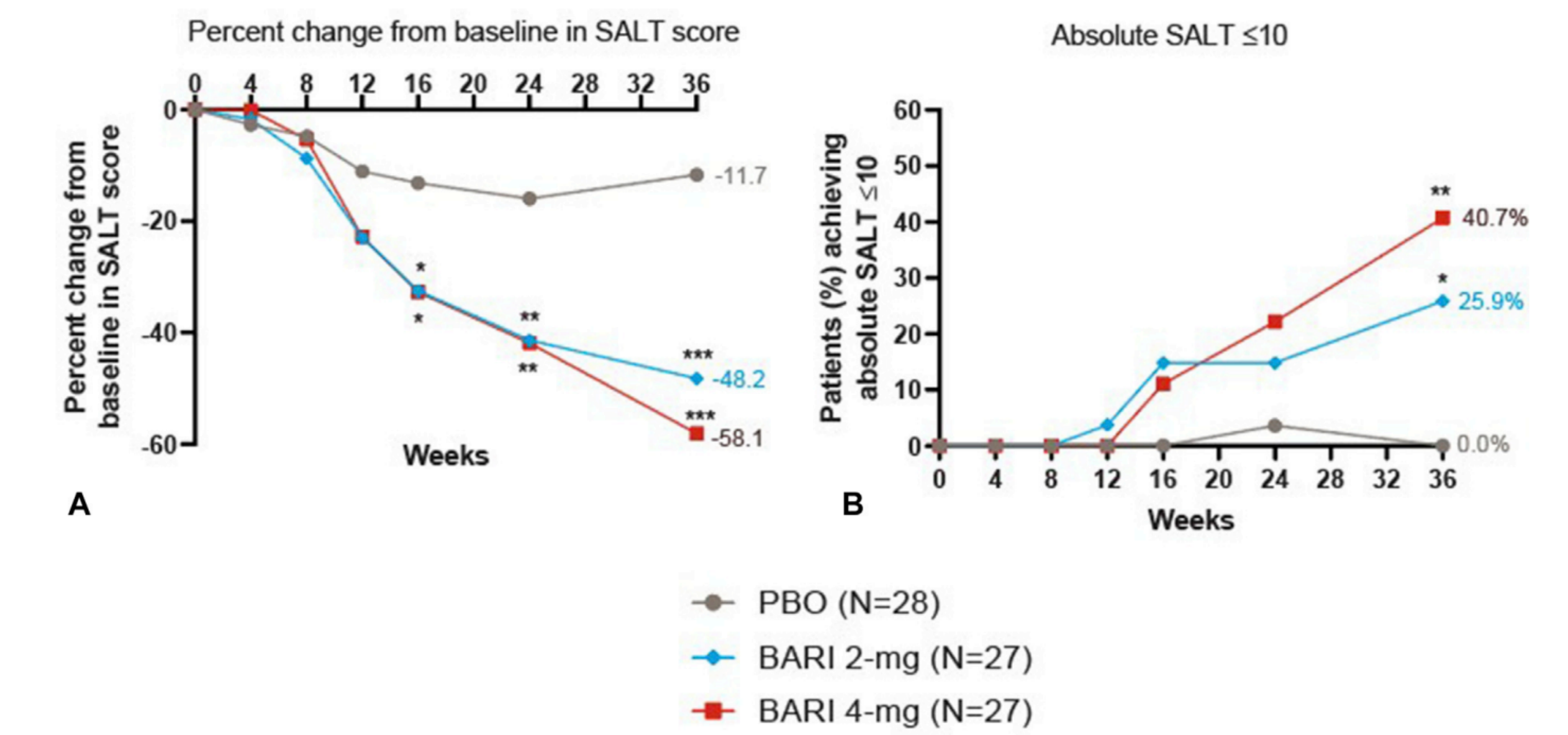


Fig 4: A, Percent change in SALT score from baseline through week 36. B, proportion of patients achieving an absolute SALT score  $\leq 10$  through week 36. \*P<.05, \*\*P<.01, \*\*\*P<.001 versus PBO.<sup>9</sup>

## Discussion and Future Directions

- From the BRAVE AA-1 and AA-2 trials, hair regrowth was noted as measured with the improved SALT scores.
  - SALT: Severity of Alopecia Tool
- Results of these trials have led to the FDA approving this drug for systemic treatment for alopecia.
- Studies have shown significant hair regrowth over the placebo.
- Overall adverse effects were minimal
  - Baricitinib is relatively tolerable and can be a safe treatment modality for severe alopecia.
- Further research is required to assess adverse effects associated with long term Baricitinib usage.
- While meaningful hair regrowth was noted, more testing should be performed on a larger sample size.

## REFERENCES

