

# Acne-Related Quality of Life: Correlation Between Acne Symptom Scores and Other Domains Following Treatment with Tretinoin 0.05% Lotion

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## SYNOPSIS

- Quality of life (QoL) in patients with acne has been shown to correlate more strongly with patient-reported severity than physician-reported severity, suggesting that patient perception may be important to consider during acne treatment<sup>1</sup>
- In acne patients, the psychosocial impacts are greater compared with other dermatologic conditions, particularly with feelings of despair and distress<sup>2</sup>
- The first lotion formulation of tretinoin was developed by utilizing novel polymeric emulsion technology to provide an important alternative option to treat acne patients<sup>3</sup>
- In two phase 3 studies (NCT02932306, NCT02965456), tretinoin 0.05% lotion was shown to be highly effective and well tolerated in patients with moderate-to-severe acne<sup>4</sup>

## OBJECTIVE

- To evaluate if improvements in QoL with tretinoin 0.05% were correlated with improvements in acne symptoms

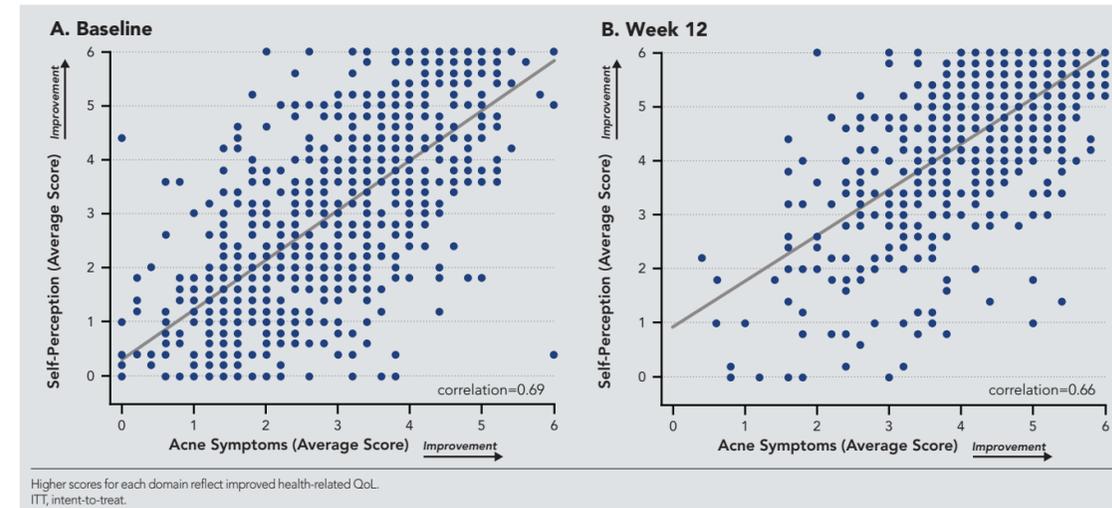
## METHODS

- QoL data from two multicenter, randomized, double-blind, vehicle-controlled studies were pooled in this post hoc analysis
- Participants with moderate or severe acne were randomized (1:1) to receive tretinoin 0.05% lotion or vehicle, once-daily for 12 weeks
- In these studies, CeraVe<sup>®</sup> hydrating cleanser and CeraVe<sup>®</sup> moisturizing lotion (L'Oreal, NY) were provided as needed for optimal moisturization/cleaning of the skin
- QoL was assessed using the validated Acne-QoL questionnaire in 4 different domains: self-perception, social, emotional, and acne symptoms
  - The correlation between the acne symptom domain (which represents the severity of acne) and the other three domains was assessed
  - Higher scores for each domain reflect improved health-related QoL, with the acne symptom domain score correlating inversely with acne severity (ie, higher score = improvement in acne symptoms)

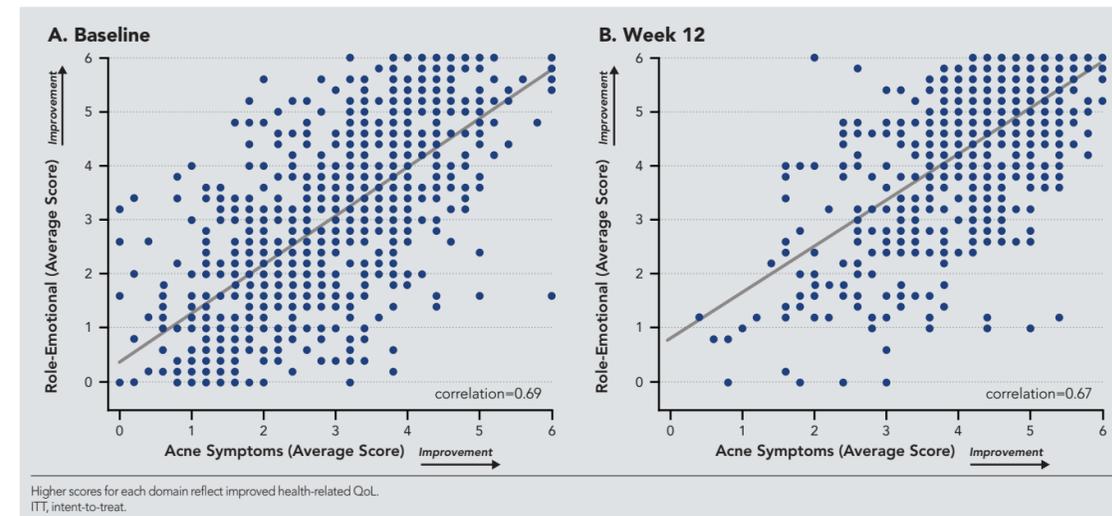
## RESULTS

- The pooled population included 1640 participants (tretinoin, n=819; vehicle, n=821), 909 (55.4%) of whom were female; participants' ages ranged from 9 to 58 years
- Mean changes from baseline to Week 12 in Acne-QoL domain scores indicated greater improvements with tretinoin 0.05% vs vehicle: self-perception (7.4 vs 6.7); role-emotional (6.8 vs 6.0); role-social (4.8 vs 4.6); and acne symptoms (6.5 vs 5.6)
- There was a significant correlation between improvements in acne symptoms and the other 3 QoL domains at baseline and at Week 12 ( $P < 0.001$ )
  - The correlation between the acne symptom scores and the other domains was similar at baseline, with a Pearson's correlation of 0.69 for self-perception (Figure 1) and role-emotional (Figure 2) and 0.68 for role-social (Figure 3)
  - At Week 12, correlations were similar (0.66, 0.67, and 0.61, respectively) with clear improvements seen with tretinoin treatment (Figures 1, 2, and 3 [higher scores for each domain vs baseline])

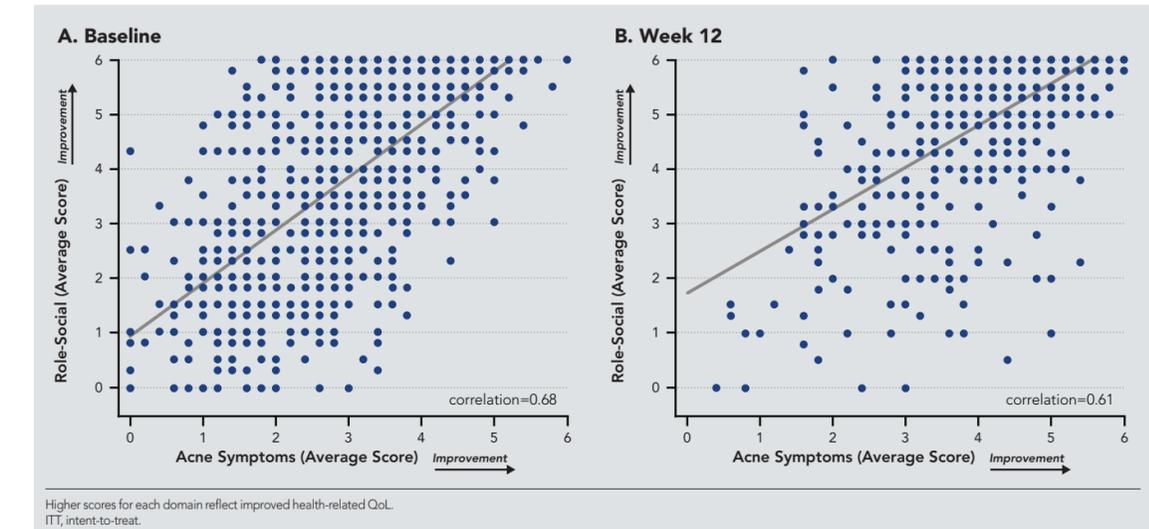
**FIGURE 1: Correlation Between Acne Symptoms and Self-Perception at Baseline and Week 12 in Patients Treated With Tretinoin 0.05% Lotion (ITT population; Pooled Data)**



**FIGURE 2: Correlation Between Acne Symptoms and Role-Emotional at Baseline and Week 12 in Patients Treated With Tretinoin 0.05% Lotion (ITT population; Pooled Data)**



**FIGURE 3: Correlation Between Acne Symptoms and Role-Social at Baseline and Week 12 in Patients Treated With Tretinoin 0.05% Lotion (ITT population; Pooled Data)**



## CONCLUSIONS

- Improvements in acne symptoms scores correlated with improvements in the other QoL domains; these correlations were observed following 12 weeks of treatment with tretinoin 0.05% lotion
- These findings suggest the improvements seen in acne symptoms are associated with improvements in other measures of QoL

## REFERENCES

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## AUTHOR DISCLOSURES

Dr. Heather Woolery-Lloyd is a shareholder for Somabella Laboratories, LLC. She has served as a speaker for Aclaris and Ortho Dermatologics, consultant for Ortho Dermatologics, and received grants/research funding from Allergan, Galderma, Nestle, Pfizer, Endo, LEO Pharma, Eirion, Golgel, and Aclaris.  
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 Dr. Eric Guenin is an employee of Ortho Dermatologics.