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# Effect of Isotretinoin on Adolescent Growth: a retrospective chart review

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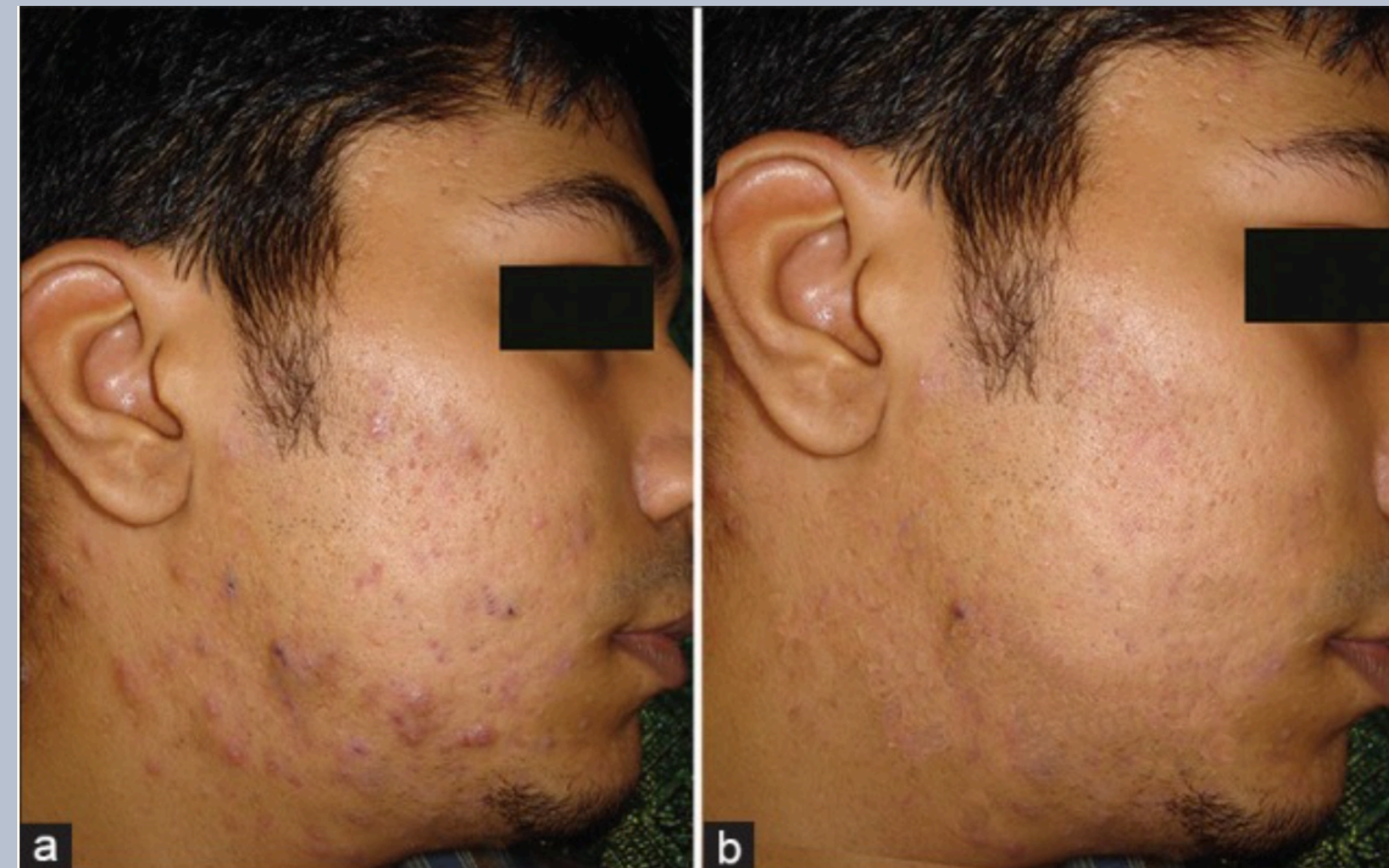
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## Objective

Assess the effect of isotretinoin treatment for severe, recalcitrant acne vulgaris on predicted growth in an adolescent population at UC Davis Dermatology.

## Introduction

- Isotretinoin (13-cis-retinoic acid) is a retinoid or vitamin A derivative widely used to treat severe acne vulgaris.
  - Decreases sebum production and prevents comedo formation. [1]
- Isotretinoin use is associated with a variety of toxicities: developmental, cutaneous, musculoskeletal, etc [1]
  - including hyperostosis and premature epiphyseal closure at high doses [1-2]
- No studies examining pediatric growth in patients treated with isotretinoin at doses appropriate for severe, recalcitrant acne vulgaris treatment.



Reproduced from Rao, PK, et.al (2014)

- (a) pre-isotretinoin treatment  
(b) post isotretinoin treatment

## Methods

Study Design: A retrospective chart review of 400 UC Davis patients planned. 200 controls, 200 acne pts treated w/ isotretinoin between the ages of 10-14.

Patient cohorts pulled from UC Davis Health EMR by UC Davis IT Health Informatics Department.

IRB# 1465531

Chart Review: Extract information from patient charts seen at UC Davis Dermatology between 2010-2019, who were or were not treated with isotretinoin at 10- 14 years old, and have since reached 18 years old or older.



Reproduced from Duvalyan A, et. al (2020)

- (c) Premature epiphyseal growth plate closure

## References

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