

EFFECT OF KELOID PROPERTIES ON TREATMENT EFFICACY: A SYSTEMATIC REVIEW

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Running Title

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BACKGROUND

The efficacy of keloid treatment in randomized studies is highly variable. However, no systematic review has been performed to evaluate the effect of different keloid properties on treatment efficacy.

Objective: to identify clinically relevant keloid properties that may influence treatment efficacy.

MATERIALS AND METHODS

An electronic database search was conducted. Two reviewers independently selected randomized controlled trials (RCTs) and performed a methodologic quality assessment using the Cochrane risk-of-bias 2.0 tool.

RESULTS

One thousand five hundred twenty studies were screened, and 16 RCTs, involving 1,113 patients, were included. The authors found lower efficacy in older keloids ($n = 3$), keloids located on the chest, extremities, pinna, and shoulder ($n = 3$), larger keloids ($n = 2$), lower baseline Vancouver Scar Scale score ($n = 1$), and keloids with history of recurrence ($n = 1$). Overall, most studies had a high risk of bias.

CONCLUSION

Only a minority of studies specifically addressed keloid properties, which makes comparisons between studies challenging. The authors' results suggest that keloid location, duration prior to treatment, size, history of recurrence, and severity are clinically relevant keloid properties that affect treatment efficacy. Further studies are crucial to corroborate the authors' findings, establish a clinically relevant keloid classification, and ultimately develop an evidence-based treatment algorithm that takes these properties into account.