

# Color Doppler Ultrasound Assessment of Activity in Keloids

Por: [Lobos, N](#) (Lobos, Nelson)<sup>[1]</sup>; [Wortsman, X](#) (Wortsman, Ximena)<sup>[2,3]</sup>; [Valenzuela, F](#) (Valenzuela, Fernando)<sup>[1]</sup>; [Alonso, F](#) (Alonso, Faustino)<sup>[1]</sup>

[Ver ResearcherID y ORCID](#)

## DERMATOLOGIC SURGERY

Volumen: 43

Número: 6

Páginas: 817-825

DOI: 10.1097/DSS.0000000000001052

Fecha de publicación: JUN 2017

Tipo de documento: Article

[Ver impacto de la revista](#)

## Resumen

**BACKGROUND** The assessment of activity in keloids may be critical for defining their management. There is a lack of clinical scorings designed for the evaluation of keloids and biopsies may be contraindicated.

**OBJECTIVE** To assess the sonographic activity of keloids in comparison with clinical scoring.

**MATERIALS AND METHODS** A retrospective study of the clinical and color Doppler ultrasound (CDU) images of patients medically derived to CDU with the diagnosis of keloid was performed. Activity was evaluated clinically (modified Seattle Scar Scale) and CDU. Keloids were considered active when CDU detected vascularity within the lesion. Statistical analysis was performed (Wilcoxon-Mann-Whitney, Student t-test, and interobserver agreement).

**RESULTS** Thirty-five patients with 42 keloids were evaluated. Color Doppler ultrasound provided the diameters, including depth, and vascularity. On CDU, 76% were active and 24% inactive. Clinically, Observer 1 found 55% and Observer 2 found 88% of active keloids. Interobserver agreement between clinical observers was moderate ( $k = 0.42$ ). Subclinical fistulous tracts, involvement of the hypodermis, muscle, and calcifications were also found on CDU.

**CONCLUSION** Color Doppler ultrasound can support the assessment of activity in keloids. Clinical evaluation alone can underestimate the activity in keloids. Relevant anatomical and subclinical features can be detected by CDU.

## Palabras clave

**KeyWords Plus:**[SCAR ASSESSMENT](#); [HYPERTROPHIC SCARS](#); [HIDRADENITIS SUPPURATIVA](#); [RELIABILITY](#); [VOLUME](#); [TOOL](#); [PHOTOGRAPHS](#); [SCALES](#); [GUIDE](#)

## Información del autor

**Dirección para petición de copias:** Wortsman, X (autor para petición de copias)

- + Univ Chile, Clin Servet, Fac Med, Dept Radiol, Inst Diagnost Imaging & Res Skin & So, Lo Fontecilla 201 7300000, Santiago 7591018, Chile.

**Dirección para petición de copias:** Wortsman, X (autor para petición de copias)

- + Univ Chile, Clin Servet, Fac Med, Dept Dermatol, Inst Diagnost Imaging & Res Skin &, Lo Fontecilla 201 7300000, Santiago 7591018, Chile.

## Direcciones:

- + [ 1 ] Univ Chile, Hosp Clin Univ Chile, Fac Med, Dept Dermatol, Santiago, Chile
- + [ 2 ] Univ Chile, Clin Servet, Fac Med, Dept Radiol, Inst Diagnost Imaging & Res Skin & So, Lo Fontecilla 201 7300000, Santiago 7591018, Chile
- + [ 3 ] Univ Chile, Clin Servet, Fac Med, Dept Dermatol, Inst Diagnost Imaging & Res Skin &, Lo Fontecilla 201 7300000, Santiago 7591018, Chile

**Direcciones de correo electrónico:**[xworts@yahoo.com](mailto:xworts@yahoo.com)

## Editorial

LIPPINCOTT WILLIAMS & WILKINS, TWO COMMERCE SQ, 2001 MARKET ST,  
PHILADELPHIA, PA 19103 USA

## Información de la revista

- **Impact Factor:** [Journal Citation Reports](#)

## Categorías / Clasificación

**Áreas de investigación:** Dermatology; Surgery

**Categorías de Web of Science:** Dermatology; Surgery