



# ACTAS Derma-Sifiliográficas

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## IMAGES IN DERMATOLOGY

### “Umbrella” Artifact Caused by Air Bubbles in Ultrasound Gel<sup>☆</sup>



### Artefacto en «paraguas» por burbujas en el gel ecográfico

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Skin ultrasound is a diagnostic tool based on the emission of sound waves via a transducer, and the generation of images from the reflection of these waves. Skin ultrasound differs from conventional ultrasound in certain technical aspects. The probe must be held differently, and a thick layer of ultrasound gel is used to separate the transducer from the skin surface to enable correct evaluation of the epidermis and dermal blood vessels.

Artifacts are ultrasound images that do not correspond to existing biological structures. They are due to physical phenomena that arise during generation of the images and are thus artificial. These artifacts can aid diagnosis,

as occurs with ultrasound shadows and posterior acoustic enhancement.

If a uniform layer of ultrasound gel is not applied carefully over the skin surface, air bubbles may be left in the gel (Fig. 1A). Larger air bubbles produce bright hyperechoic artifacts with lateral reverberations and a posterior ultrasound shadow that we have called the *umbrella artifact* (Fig. 1B). These artifacts interfere with the correct evaluation of the skin surface. It is essential for the operator to minimize the presence of these bubbles by adequately extending the applied gel.

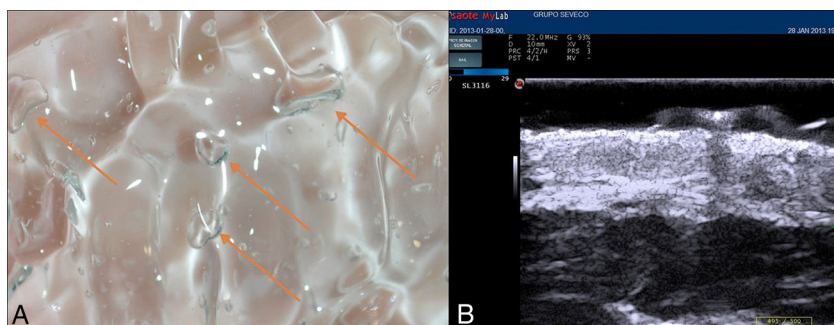


Figure 1

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