



DERMOSCOPY AND SKIN IMAGING

## ULTRASOUND IMAGING IN SKIN LESIONS – A NON INVASIVE TOOL

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**INTRODUCTION:** Ultrasound imaging is used in dermatology as a non invasive tool to study changes in all layers of skin. It will aid in diagnosis of various disorders like nodules, infections and inflammatory conditions. By analyzing the skin surface in three dimensions, ultrasound associated with color Doppler, allows the investigation of tumor and inflammatory diseases, the measurement of skin thickness, evaluation of proposed treatments and their prognosis. Benign and malignant conditions can be differentiated by using this diagnostic tool with colour Doppler and thus invasive procedures can be minimised wherever not possible to do though biopsy is the gold standard for diagnosis and treatment which cannot be replaced.

**OBJECTIVE:** To study various skin lesions by using ultrasound imaging and colour Doppler

**MATERIALS AND METHODS:** A prospective study conducted in 160 cases at two centers of Hyderabad from July 2016 to December 2017 by using variable frequency (6-18 MHz) high resolution ultrasonography and colour Doppler.

**RESULTS:** The skin lesions included psoriasis (11), lipoma (25), sebaceous cysts (48), morphea (12), seborrheic keratosis (33), lipodermatosclerosis (4), dermal nevus (6), basal cell carcinoma (5), squamous cell carcinoma (5), melanoma (2), cutaneous lymphoma (4) and cutaneous metastasis (5).

**CONCLUSION:** High-Resolution ultrasound (HRUSG) is complementary to clinical examination by providing valuable information in the detection and accurate measurement of various cutaneous lesions. In the evaluation of cutaneous lesions, HRUSG with color Doppler is useful as a safe, noninvasive and economical diagnostic procedure that can reduce invasive procedures like fine needle aspirations and biopsies.

