

Introduction

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Skin diseases classified either according to its origin to primary skin disease and secondary skin diseases or according to the causative agent to: non- infectious skin diseases as urticaria, dermatitis, angio-neurotic edema and infectious skin diseases (viral, bacterial, mycotic and parasitic diseases) and other diseases (congenital, granulomatous, neoplasm lesions) **(Kenneth.Katz, 2001)**.

Recently, high-frequency ultrasonography has been introduced to dermatology, currently; the most often used frequency for skin imaging is between 20 and 25 MHz. Ultrasound images can be generated in different modes, i.e. one-dimensional A mode, two-dimensional B mode and C mode. This type of skin imaging is known as a non invasive, reproducible and quantitative method, which can be used to evaluate skin characteristics in a variety of dermatologic diseases. It can find application in the assessment of skin tumors, morphea, psoriasis, lipodermatosclerosis, skin aging and photo damage, hypertrophic scars, wound healing processes and allergic reactions **(Zmudzinska et al., 2008)**.

Magnetic resonance image (MRI) is finding an interesting clinical application in evaluating skin tumors because the thickness of skin is small, MRI of the skin demands high resolution and high sensitivity. Recent development in surface coil technology and high field scanners have made MRI useful to study superficial skin structures at high resolution. The application of MRI in dermatology can give a detailed picture of a tumor and its depth of invasion in relation to adjacent anatomic structures **(Moganty et al., 2003)**.

MR spectroscopy has been used to differentiate the diseased skin from the normal skin, Recently, Raman spectroscopy has been used for skin lesion detection. FT-Raman spectroscopy is a modern analytical tool and its use for cancer diagnosis will lead to several advantages for the patient as, for example, real time and less invasive diagnosis. The primary objective of this work was to use FT-Raman spectroscopy to detect spectral changes between benign and malignant skin tissue. Those spectral changes can provide important information about the biochemical variations between these two types of tissues **(Lilian et al., 2003)**.

Elastic light scattering spectroscopy used to differentiate between malignant and benign skin lesions. The system consists of a UV spectrometer, a single optical fiber probe and a laptop. The single optical fiber probe was used for both delivery and detection of white light to tissue and from tissue. Single optical fiber probe received singly scattered

photons rather than diffused photons in tissue. Therefore, the spectra are correlated with morphological difference of the cells (**Canpolat et al., 2007**).

Elastography was found to distinguish between benign and malignant lesions not by their visible appearance but by measuring their elasticity or stiffness. Since malignancies are stiffer than benign growths, elastography, when added to high-frequency ultrasound imaging of the skin, has potential to improve the accuracy of traditional clinical diagnosis of skin cancers and, in some cases, eliminate unnecessary biopsies of benign skin lesions. The procedure is noninvasive, convenient and inexpensive (**Giovagnorio et al., 1999**).

Simple, safe, and inexpensive x-ray imaging using the mammography technique is the hallmark in diagnosis of arteriolar calcification of patients with calcific uremic arteriopathy (CUA) (**Wissam et al., 2006**).

Computed tomography (CT) has been useful in staging mycosis fungoides and which is uncommon primary malignant T cell lymphoma of the skin. And in defining the extent of adenopathy. Typical findings include focal skin thickening due to dermal and epidermal infiltration (**Malloy et al., 1998**).