

**DIFFERENTIATION
OF
PULPOPERIAPICAL LESIONS
USING
DOPPLER ULTRASOUND**

A thesis

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BY

**Dr. Yahya Qasim Mohammad
B.D.S**

Supervised by

**Assist. Prof. Dr. Aziz K. Ali
B.D.S, F.F.D.R.C.S.I**

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Abstract

Aim of the study:

The aim is to evaluate the effectiveness of real time color Doppler ultrasound in the differentiation of periapical lesion whether it is granuloma or cyst based on its content and vascularization.

Materials and methods:

Twenty patients diagnosed clinically and radiographically as having chronic periapical lesions of dental origin were examined with color Doppler ultrasound, and echographic predilections whether the lesion is granuloma or cyst were compared to corresponding histopathological examinations of biopsies obtained from periapical surgeries.

Results:

In all cases it was possible to obtain an echographic image. It was also possible to measure the lesions, to evaluate their content and to view their vascularization in the anterior part of the upper and lower jaws.

Conclusions:

1. Real time color Doppler ultrasound is a new effective investigation technique in differentiation between periapical granulomas and cysts. Furthermore, it can detect the nature of any endodontic bony lesion whether it is solid, cystic or mixed lesion.
2. This technique is safe, reproducible, time and cost effective technique in endodontology compared to other effective diagnostic techniques like computerized tomography (CT) or magnetic resonance imaging (MRI).