**Characterization of lesions of the Breast by using diagnostic**

**imagining Technique: Ultrasound Elastography**

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**ABSTRACT**

**Objective:** To measure the diagnostic accuracy of Ultrasound Elastography in the differentiation of benign and malignant breast lesions from each other by simultaneously doing confirmation through histopathology of breast lesions.

**Study Design:** Cross-Sectional study.

**Place and Duration:** Department of Radiology, Mardan Medical Complex Hospital from June 1st, 2020 to December 1st, 2020.

**Methodology:** Patients who presented with breast lumps were included. Patients with cystic breast lesions, those who had had surgery or chemotherapy, and those who had signs of infection were all excluded from the study. After Ultrasound elastography evaluation of lesion, the results were compared with the histopathology of the lesion post-operatively. The diagnostic accuracy of ultrasound elastography were analyzed.

**Results:** The total f 165 women studies, with an average age of 45.4+10.5 years (range 34-56). The mean elastography value for benign lesions was 48.96kPa+42.32 and for malignant lesions was 132.78kPa+42.32 (P 0.001). Malignant lesions found on ultrasound elastography were 117 among 165 (71%) patients. Benign lesions of the breast were 48 among 165 patients (29%). When confirmed with histopathology, 122 patients (73.93%) were found to have malignant breast lesions in 165 patients while 43 had benign lesions (26.06%) which proved breast elastography has high diagnostic accuracy. The mean elastography value for benign lesions was 48.96kPa+42.32 and for malignant lesions was 132.78kPa+42.32 (P0.001).

**Conclusion:** Breast elastography imaging method minimize the frequency of biopsies of breast lesions conducted by pathologists saving cost and decrease suffering of patients and high diagnostic accuracy for breast elastography was observed.

**Keywords:** Breast, Benign Lesion, Malignant Lesion, Mammography, Ultrasound Ultrasonography, Histopathology

**How to Cite This:**

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