SKIN CANCER (OTHER THAN MELANOMA)

HIGH-FREQUENCY ULTRASOUND FEATURES OF BASAL CELL CARCINOMA AND ITS ASSOCIATION TO HISTOLOGICAL RECURRENCE RISK

Jie Liu Liu [1] - Shiqi Wang Wang [1] - Qingli Zhu Zhu [2] - Ximena Wortsman [3] - Hongzhong Jin [1]

Chinese Academy Of Medical Sciences And Peking Union Medical College, Department Of Dermatology, Peking Union Medical College Hospital, Beijing, China [1] - Chinese Academy Of Medical Sciences And Peking Union Medical College, Department Of Ultrasound, Peking Union Medical College Hospital, Beijing, China [2] - Faculty Of Medicine University Of Chile, Faculty Of Medicine University Of Chile, Santiago, Chile [3]

Background: As high-frequency ultrasound technology advances, fine structures of skin lesions can be better revealed.

Objective: To examine the ultrasonographic features and use recurrence risk stratification to assess the diagnostic performance of pre-operative ultrasound of basal cell carcinoma (BCC).

Methods: This was a retrospective study. 36 lesions of BCC underwent a pre-surgical ultrasound using 50-MHz and 20-MHz probes. Ultrasonographic shape, margin, internal echoes, hyperechoic spots, posterior echoes, and depth of lesion were evaluated and correlated with histology considering histologic risk of recurrence.

Results: Thirty-two patients had 36 skin lesions in total. The high-risk (n=4) and low-risk (n=32) groups exhibited considerable overlap in the ultrasonographic manifestations and no significant difference in shape (p=0.250), margin (p=0.229), internal echo (p=0.545) or posterior echo (p=0.431) of BCC. Both types present hyperechoic spots (p=1.000). 69.7% of low-risk lesions were confined to the dermis (23/33) and 100% of high-risk lesions infiltrated into the subcutaneous tissue. In 5 patients, ultrasound could detect subclinical lesions.

Conclusion: High-frequency ultrasound can provide important information for preoperative evaluation of risk in BCC foci and reveal hidden lesions. The technique may play a crucial role in guiding therapeutic options for BCC.