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Titel des Beitrags: [Clip marker placement following MR-guided vacuum biopsy of the breast]

Abstract: PURPOSE: The purpose of our study was to determine the placement accuracy, usefulness as a guide for wire localization, and long-term stability of tissue marker clips following MR-guided vacuum-assisted biopsy (VB) of breast lesions. METHODS: During a 2-year period, MR-guided VB with an 11-gauge device was performed in 79 lesions. In 26 lesions a marker clip was placed at the biopsy site. RESULTS: In 18 cases, the clip was shown to be closely adjacent to the lesion on post-interventional MR images. In seven cases in which minor bleeding occurred, the clip dislocated (< or =15 mm) in the direction of the needle pathway. In one case dislocation in the dorsal direction (< or =5 mm) was observed. In eight cases with a malignant or borderline histology according to the VB, the marker clips served as targets for mammographically guided wire localization. In all of those patients, histology results derived from open surgery confirmed those of VB. Eighteen patients with benign findings according to the VB were followed up 6 months later. Among these cases we found a significant displacement of the marker clip in one case (3 cm). The clip generally caused a round artifact (diameter of 9+/-2 mm). In two cases it was not possible to determine whether the lesion had been removed completely or was just behind the artifact caused by the clip. CONCLUSION: Based on our results, clip marker placement following MR-guided vacuum biopsy should be...
called into question due to the possibility of masking the lesion by a metallic artifact and because of possible dislocation.