MRI导丝定位术对仅MRI显示的乳腺病变的诊断价值

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Title: **The application value of MRI-guided wire localization for nonpalpable breast lesions shown by MRI only**

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摘要: 目的：初步探索MRI导丝定位术对仅MRI显示的乳腺微小病变的诊断价值。方法：使用Toshiba 1.5T VISART超导MRI仪，八通道相控阵乳腺专用线圈，专用导丝及定位系统，对16例患者19处仅MRI显示、BI-RADS分类为4类及以上的乳腺微小隐匿病灶进行导丝定位术。根据MRI检查可疑病灶的部位，结合专用软件进行测量计算，选择外侧位、内侧位，精准定位进针，观察操作方式及定位准确性，准确划定手术区域位置及范围，定位结束后送病人行外科手术切除，结合手术病理结果进行对比分析。结果：16例患者19个病灶均一次定位成功，病理切片证实病变完全成功切除，成功率为100%。术前MRI综合诊断BI-RADS分类4A类5处，4B类6处，4C类6处，5类2处；病理包括：导管内多发乳头状瘤3处(其中1例伴不典型增生)，中度不典型增生2处，重度不典型增生5处，导管内癌4例，导管内癌伴微浸润1例，浸润性乳腺癌1例，大汗腺化生伴导管上皮增生1例，硬化性腺病伴筛状增生1例，微小纤维腺瘤1例，术前MRI诊断结论与术后病理结果对照，诊断符合率为84.21%（16/19）。结论：对X线、超声无法检出，临床触及阴性，仅MRI显示的乳腺微小隐匿性病灶，应用MRI进行初步定性诊断，对BI-RADS分类4A类及以上的病灶进行MRI导丝定位术，是一种早期、安全、准确可靠的方法，弥补了X线、超声诊断的不足及假阴性的发生，提高了早期乳腺癌、导管内癌及不典型增生的精准诊治水平，是对乳腺X线和超声引导乳腺导丝定位术的重要补充。

Abstract: Objective：To explore the application value of MRI localization biopsy in the diagnosis of nonpalpable breast lesions shown by MRI only.Methods：We performed MR localization biopsy in the 16 cases with 19 small hidden breast lesions showed by MRI only.All of the breast lesions were categorized as 4 to 5 on BI- R ADS.The materials to be used are as follows：Toshiba MRI(1.5T VISART superconducting)，special coil for 8-channel phased-array mammary gland，special guide wire and positioning system.According to the location of suspicious lesions detected by MRI，and combined with special software for measurement，we can get the needle in exactly.Observing the operation mode and positioning accuracy，accurately delineating the position and scope of the surgical area，then sending the patient for surgical resection，finally，the pathological results of the operation are compared with MRI findings.Results：The location and surgical excision were succeeded on the 16 patients (100%)． Preoperative MRI comprehensive diagnosis of BI-RADS classification included 5 of 4A，6 of 4B，6 of 4C，and 2 of 5.The pathologic findings were as followed：Multiple intraductal papilloma in 3 rest lesions (one case was accompanied by atypical hyperplasia)，moderate atypical hyperplasia in 2 rest lesions，severe dysplasia in 5 rest lesions，intraductal carcinoma in 4 cases，intraductal carcinoma with microinvasion in 1 case，invasive breast cancer in 1 case，large sweat gland metaplasia with ductal epithelial hyperplasia in 1 case，sclerosing adenopathy with cribriform hyperplasia in 1 rest lesion，microscopic fibrous adenoma in 1 case.Compared the preoperative MRI diagnosis with the postoperative pathological results，we calculated a

diagnostic coincidence rate of 84.21% (16/19).Conclusion：Breast small hidden diseases showed by only MRI showed and categorized as 4 to 5 on BI- R ADS，MRI guided breast lesion localization and biopsy provides an accurate and safe method for detecting the breast lesions.This technology can make up for the deficiency of X-ray and ultrasound diagnosis，reduce the false negative rate of diagnosis，and improve the precision diagnosis and treatment level of early breast cancer，intraductal cancer and dysplasia.It is an important supplement for mammography and ultrasound-guided mammography.

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