

Title MRI-guided vacuum-assisted breast biopsy (VABB)

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Reference http://www.has-sante.fr/portail/upload/docs/application/pdf/2012-/hta_summary_report_mri-guided_vacuum-assisted_breast_biopsy_vabb_.pdf
http://www.has-sante.fr/portail/jcms/c_1093749/macrobiopsie-sous-aspiration-de-lesion-de-la-glande-mammaire-par-voie-transcutanee-avec-guidage-remnographique-irm-rapport-d-evaluation

Aim

MRI-guided VABB is a breast biopsy technique used for percutaneous histologic tissue acquisition of non-palpable breast lesions, only detected by MRI and having neither sonographic nor mammographic correlates. This minimally invasive needle biopsy technique reduces the need for open surgical breast biopsy in patients with benign lesions and allows for optimal preoperative work-up and surgical planning through definitive diagnosis in patients with breast cancer. Our objective was to evaluate technical success rate, safety and diagnostic effectiveness of MRI-guided VABB and determine its clinical indications for use. Specific practice and facility requirements for reimbursement in France were equally assessed.

Conclusions and Results

MRI-guided VABB appears to be technically feasible, safe, and effective in characterizing breast lesions based on the findings of five prospective studies. The average success rate was 95%. In approximately one quarter of lesions (26%), cancer was found at MRI-guided VABB. High-risk lesions were found in 4% of lesions and benign concordant lesions in over two-thirds (68%). Overall, surgical histology findings revealed 95% concordance and 5% underestimation. For lesions yielding atypical ductal hyperplasia at biopsy, the frequency of cancer at surgery ranged from 25 to 67%. No incident of cancer was reported at MRI follow-up (range: 3-24 months) for patients with benign concordant lesions, not accounting for an approximate lost to follow-up rate of 12%. In France, the incidence of cancer at

the MRI follow-up is estimated between 1-2% (expert opinion). Frequent complications include discomfort and neck pain related to patient positioning and immobility required throughout the procedure, followed by non-complicated hematoma and bleeding at the puncture site.

Recommendations

The HAS recommends the use of MRI-guided VABB in patients with MRI detected lesions, without sonographic/mammographic correlates. With respect to the ACR BI-RADS-MRI classification system, MRI-guided VABB is indicated in the following lesions: BI-RADS 4 and BI-RADS 5. MRI-guided VABB may also be appropriate for BI-RADS 3 lesions in select patients.

Methods

A Health Technology Assessment Report was prepared and based on a systematic review of the evidence and consultation of a multidisciplinary expert panel. The expert panel was composed of radiologists specializing in breast imaging (4), pathologists (3), gynaecologists and breast surgeons (4) and medical oncologists (1). Five prospective studies and 1 European Consensus Conference were identified, satisfying the selection criteria. The results of the analysis were discussed with the expert panel. The conclusions were reviewed by the HAS Committee for Assessment of Medical and Surgical Procedure. The final report was approved by the HAS Board prior to publication.

Further Research/Reviews

Publication of better reported diagnostic accuracy studies would permit verification that our conclusions are accurate and not influenced by biases in the studies included in the HAS assessment.

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