917

Lee M S[1], Lee D H[1], Jeon H G[2], Choi H Y[2], Lee H M[2], Lee H[1]
1. Seoul National University Bundang Hospital, Seongnam, Korea, 2. Department of Urology, Samsung Medical Center, Seoul, Korea

CAN MULTIPARAMETRIC MAGNETIC RESONANCE IMAGING PREDICT POSTOPERATIVE UNFAVORABLE PATHOLOGY IN PATIENTS WITH LOCALIZED PROSTATE CANCER UNDERGOING RADICAL PROSTATECTOMY.

Hypothesis / aims of study
We investigated the accuracy of multiparametric MRI (mpMRI) for preoperative staging and its influence on the determination of neurovascular bundle sparing and disease prognosis in patients with localized prostate cancer.

Study design, materials and methods
We reviewed 1045 patients who underwent radical prostatectomy with preoperative mpMRI at a single institution. Clinical local stages determined from mpMRI were correlated with preoperative and postoperative pathological outcomes.

Results
The sensitivity and specificity to diagnose seminal vesicle invasion (SVI) on mpMRI were 43.8 and 95.4 %, respectively. The negative predictive value was 78.9 %. The sensitivity and specificity to diagnose extracapsular extension (ECE) were 54.5 and 80.5 %, respectively. The overall sensitivity and specificity of diagnosing pathological T3 or higher were 52.6 and 82.1 %, respectively. Non-organ-confined disease determined by mpMRI was significantly associated with positive surgical margin and pathological T3 disease on multivariate analysis. Preoperative adverse findings on mpMRI were significantly associated with performance of the non-nerve-sparing technique.

Concluding message

mpMRI did not show outstanding diagnostic accuracy relative to our expectations in predicting SVI or ECE preoperatively. However, adverse findings on preoperative mpMRI were significantly related to worse postoperative pathological outcomes as well as postoperative biochemical recurrence.

References
1. Futterer JJ, Briganti A, De Visschere P et al (2015) Can clinically significant prostate cancer be detected with multiparametric magnetic resonance imaging? A systematic review of the literature. Eur Urol 68:1045–1053
2. Valerio M, Donaldson I, Emberton M et al (2015) Detection of clinically significant prostate cancer using magnetic resonance imaging-ultrasound fusion targeted biopsy: a systematic review. Eur Urol 68:8–19
3. Park SY, Jung DC, Oh YT, Cho NH, Choi YD, Rha KH, Hong SJ, Han K (2016) Prostate cancer: PI-RADS version 2 helps preoperatively predict clinically significant cancers. Radiology 2:151133

Disclosures
Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Samsung Medical Center Ethical Committee **Helsinki:** Yes **Informed Consent:** No