OBJECTIVE: To establish MRI's performances for the detection of extracapsular progression of prostate carcinoma, in a single center, analyzing the correlation between MRI imaging and histological analysis of prostate specimen.

METHODS: From February 2008 to June 2012, all the patients selected for prostatectomy had a pre-operative MRI. Diffusion, T2 and dynamic T1 with gadolinium injection sequences were realized on a 1.5T-MRI with external antenna. All imaging data was analyzed by a specialized radiologist. Prostate specimens were histologically analyzed throughout large blades for utmost topographic comparison. The histological TNM was compared to the MRI data. MRI's capacity in determining the existence and the size of extracapsular progression was studied.

RESULTS: One hundred and fifty-eight patients (median age 62 years old, mean PSA 8.6 ng/mL) were included, among which 45% of d'Amico low risk and 55% of intermediate and high risk. Histological results were 63% of pT2 and 37% of pT3. MRI's sensibility and specificity for detecting extracapsular progression were 0.30 and 0.85 respectively (PPV 0.54; NPV 0.67), with a 65% accuracy. In the low risk group, sensibility equaled to 0.16.

CONCLUSION: In our experience, MRI results were not reliable to influence the choice of treatment. It should be executed by expert radiologists, who are still very few.

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