Prostatic tumors beyond adenocarcinomas on multiparametric prostate MRI

Thais Caldara Mussi (Hospital Israelita Albert Einstein, Brazil), Tatiana Martins (Hospital Israelita Albert Einstein, Brazil), Marcos Roberto Queiroz (Hospital Israelita Albert Einstein, Brazil), Rodrigo Gobbo (Hospital Israelita Albert Einstein, Brazil), Ronaldo Hueb Baroni (Hospital Israelita Albert Einstein, Brazil)

BACKGROUND: Prostate tumors non-adenocarcinomas are rare, although can mimic adenocarcinomas. Radiologists, pathologists and urologists must know the imaging findings of those lesions to choose the best conduct.

HYPOTHESIS: To describe the imaging findings of non-usual prostatic tumors diagnosed with biopsy with imaging fusion US/MRI.

METHODS: Retrospective study of 200 patients that performed prostate mpMRI followed for biopsy with imaging fusion US/MRI. Medium PSA was 4.9 ng/mL. All patients submitted to prostate mpMRI in a 3T scanner without endorectal coil, including T2, ADC and perfusion sequences.

RESULTS: 83 biopsies (41.5%) were negatives and 117 (58.5%) were positives for neoplasia. Of 117 positives cases, 113 (96.6%) were acinar adenocarcinomas, one (0.008%) was stromal tumor of uncertain malignancy potential (STUMP) and tree (0.02%) were leiomyomas. STUMP was characterized as well-defined and heterogeneous nodule in the peripherical zone, with diffusion restriction and hypervascularization. Leiomyomas were characterized as homogeneous expansive lesions, with marked diffusion restriction and hypervascularization.