P069

Identification of clinically significant recurrence patterns in biochemical recurrence after radical prostatectomy and first salvage treatment in patients with prostate cancer using Ga68 PSMA PET-CT

Eur Urol Open Sci 2022;45(Suppl 2):S140

Barbas Bernardos G.[1], Andrés Boville G.[1], Guillén Valderrama E.F.[2], Ramón De Fata Chillón F.[1], Villacampa Aubá F.[1], González Padilla D.A.[1], Miñana López B.[1]

[1]Clínica Universidad de Navarra, Dept. of Urology, Madrid, Spain, [2]Clínica Universidad de Navarra, Dept. of Nuclear Medicine, Madrid, Spain

Introduction & Objectives: Anatomical localization of recurrences after radical prostatectomy(RP) in prostate cancer(PCa) at the time of biochemical recurrence(BCR) remains a challenge nowadays. Ga68-GaPSMA/PET-CT has increased sensitivity and specificity in this asset at earlier stages, making it possible to better define territories receiving salvage treatments, theoretically increasing disease control. We define clinically significant recurrence patterns of prostate cancer in patients treated with RP and carryout a comparative analysis of the distribution of primary and secondary recurrence patterns after surgery and first local salvage therapy.

Materials & Methods: Observational, longitudinal, historical cohort study approved by our Clinical Research Ethics Committee. Patients who underwent a Ga68-PSMA PET-CT with a primary BCR after RP or with a second BCR after first salvage treatment were included. To establish clinically significant recurrence patterns, patients were grouped into exhaustive and mutually exclusive groups with well-defined treatments in Clinical Practice Guidelines. Descriptive analysis for quantitative and qualitative variables was performed and comparisons were made using parametric and nonparametric tests.

Results: 118 patients met inclusion and exclusion criteria. 91(77%) were patients with a first untreated recurrence(group A); 27(23%) had been treated for a previous recurrence (group B). In group A, mean PSA at the time of Ga68-PSMA PET-CT was 0.805 ng/ml, location of recurrence could be detected in 57 patients (sensitivity of 62.6%). In group B, with a mean PSA of 1.16 ng/ml was 85.2% (p=0.058). Group B had a time to recurrence of 15 months compared to 34 months in group A(p=0.012). Six clinically significant patterns of recurrence were identified. Regarding the distribution of recurrence patterns between the two groups, no significant differences were observed.

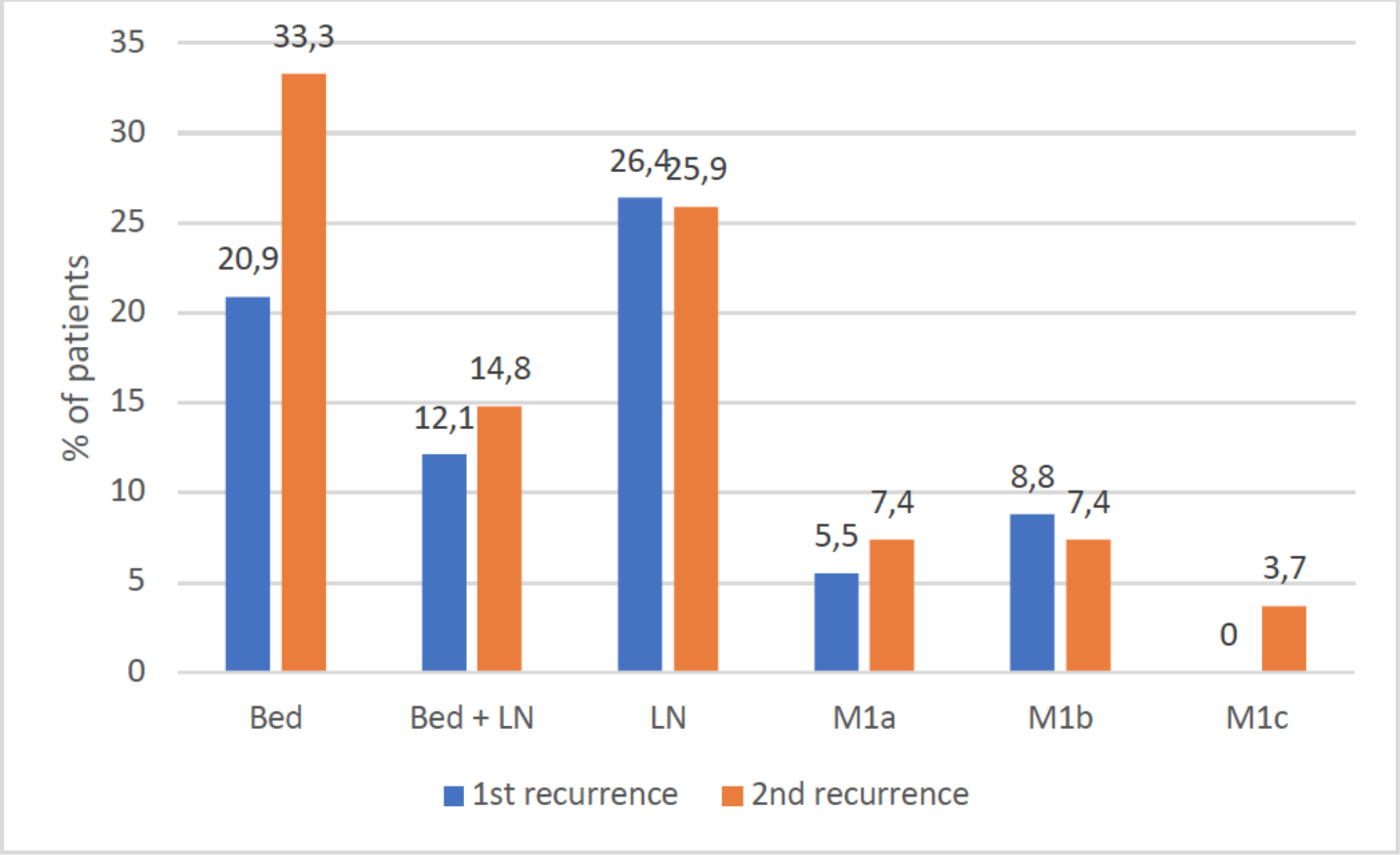

Figure 1: Distribution of patterns of recurrence.

Conclusions: We describe 6 clinically significant recurrence patterns after RP that may modify salvage treatment using Ga-68-PSMA/PET-CT allowing tailoring personalized treatments. At least 15% of patients with recurrence after RP are receiving insufficient treatment because of unsuspected metastatic disease when studied with classic diagnostic imaging.