**MP09-06**  
**PROSTATE CANCER DETECTION AND COMPLICATIONS OF TRANSPERINEAL VERSUS TRANSRECTAL MRI-FUSION GUIDED PROSTATE BIOPSY**  

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**INTRODUCTION AND OBJECTIVE:** Detection rates of clinically significant prostate cancer (csPCa) in transperineal (TP) and transrectal (TR) MRI-fusion targeted prostate biopsies (MRI-bx) remains in question. We compared TP and TR approaches on rates of detection of csPCa and complications when performing MRI-bx.

**METHODS:** We retrospectively identified men ages 18-89 who underwent TP or TR MRI-bx with concurrent systematic random biopsy from August, 2020 to August, 2021. Patients undergoing systematic-only TR biopsies were also included. Analyses primarily focused on cancer detection rates between the two MRI-bx groups; comparisons were also made to the standard random biopsy group. Data were additionally stratified by prior biopsy status. Grade Group ≥2 was considered csPCa. Complications within 30 days of biopsy were also compared.

**RESULTS:** 520 patients were included in the analysis. No demographic differences were observed (Table 1). When analyzing only MRI-bx approaches, no significant differences were observed between TP and TR on any of the outcomes of interest (Table 2). TR MRI-bx identified csPCA in 47.2% of patients, and TP MRI-bx identified csPCA in 48.6% of patients (p = 0.777); systematic-only TR biopsies identified csPCA in 34.0% of patients. 54.0% of TR MRI-bx and 41.1% of TP MRI-bx identified csPCA in patients with a prior negative biopsy (p = 0.345). 62.5% of TR MRI-bx and 43.8% of TP MRI-bx identified csPCA in biopsy-naive patients (p = 0.194). Significant differences were observed in csPCA detection between all three approaches for AS (p = 0.013) and prior negative biopsy patients (p = 0.045), but not between MRI-TP and MRI-TR biopsies.

**CONCLUSIONS:** Neither the identification of csPCA by MRI-bx nor rates of complications differed significantly based on a TR or TP approach. No differences were seen between MRI-guided approaches based on prior biopsy/AS status.

### Table 1. Baseline demographics and biopsy results of included patients

|                | MRI-TR | MRI-TP | Systematic-TR | p     |
|----------------|--------|--------|---------------|-------|
| N              | 176    | 185    | 159           |       |
| Median age (IQR) | 66 (60-70) | 66 (60-71) | 65 (60-70) | 0.605 |
| Median PSA (IQR) | 6.4 (4.8-10.2) | 6.6 (4.9-8.5) | 5.8 (4.5-8.8) | 0.111 |
| Ethnicity (n, %) |        |        |               | 0.174 |
| Caucasian      | 140 (85.4%) | 135 (89.3%) | 117 (80.1%) |       |
| Black          | 13 (7.6%) | 13 (7.3%) | 19 (12.8%) |       |
| Latino         | 11 (6.5%) | 6 (3.4%) | 10 (6.7%) |       |
| Other          | 6 (3.5%) | 1 (0.6%) | 3 (2.0%) |       |
| Prior biopsy status (n, %) |        |        |               | <0.001 |
| Active surveillance | 121 (68.8%) | 98 (55.0%) | 24 (15.1%) |       |
| Prior negative biopsy | 39 (22.3%) | 39 (21.2%) | 10 (6.3%) |       |
| Biopsy naïve   | 16 (9.5%) | 48 (25.9%) | 123 (78.6%) |       |

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**MP09-07**  
**SAFETY PROFILE OF ROBOTIC-ASSISTED TRANSPERINEAL MRI-US-FUSION GUIDED BIOPSY OF THE PROSTATE**  

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**INTRODUCTION AND OBJECTIVE:** Robotic-assisted transperineal MRI-US-fusion guided biopsy of the prostate (RA-TP-PBx) is a novel and highly accurate procedure. The aim of this study was to evaluate the MonaLisa prostate biopsy system in terms of safety, tolerability, and patient-related outcomes.

**METHODS:** This prospective study included 135 patients, who had undergone RA-TP-PBx at the University Hospital Basel between January 2020 and August 2021. Peri-operative side effects, functional outcomes and patient satisfaction were assessed.

**RESULTS:** Overall, 18 of 135 patients (13.3%) developed grade I complications according to Clavien-Dindo classification. No higher-grade complications occurred. Mean pain score on the day of biopsy was 1.1 points onVAS, which remained constant on the day after biopsy. Gross haematuria, hematospermia and acute urinary retention occurred in 91/135 (68.9%), 66/135 (26.5%) and 17/135 (12.6%) patients, respectively. One patient (0.7%) developed urinary tract infection.

**CONCLUSIONS:** RA-TP-PBx performed under general anaesthesia is a safe and well tolerated procedure. This technique allows to omit perioperative prophylaxis and at the same time minimizes the risk of infectious complications. We attribute the favorable risk profile and tolerability to the minimal invasive approach via two entry points.