SAPIENZA
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Prospective validation of vesical imaging-reporting and data system (VI-RADS) for non-muscle invasive (NMI) vs. muscle invasive bladder cancer (MIBC) discrimination in patients candidate for primary transurethral resection of bladder tumors (TURBT)

(MP55-12)

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❖ Rationale

✓ To differentiate muscle invasive (MIBC) from non-muscle invasive tumors (NMIBC) using VI-RADS

➢ **Prospective, single center design**

Aim I: VI-RADS for NMIBC vs. MIBC before TURBT (**n=231**)

Aim II: VI-RADS Accuracy for Re-TURBT outcomes prediction (**n=114**)

➢ **Image analysis**

- ❑ **1 Muscle invasion is highly unlikely**
- ❑ **2 Muscle invasion is unlikely to be present**
- ❑ **3 Muscle invasion is equivocal**
- ❑ **4 Muscle invasion is likely**
- ❑ **5 Invasion of muscle & beyond the bladder is very likely**

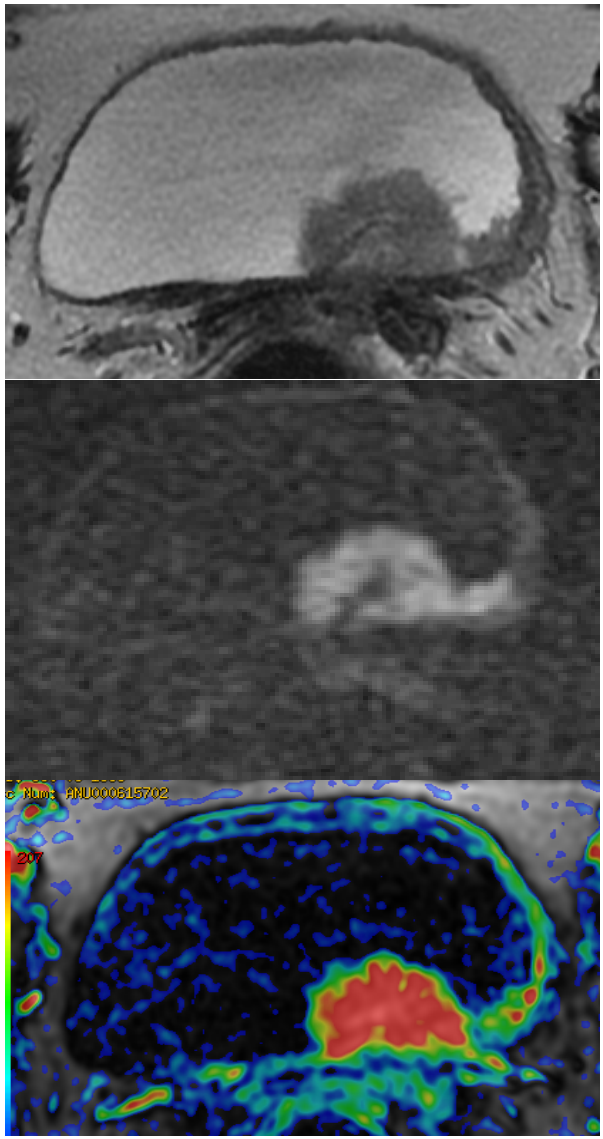
➢ A cutoff score of VI-RADS ≥ 3 to define MIBC was assumed

MpMRI Protocol:

✓ T2WI (Sag/Cor/Ax Planes)
✓ DWI (different b value)
✓ DCE (temporal resolution of 5 sec.)

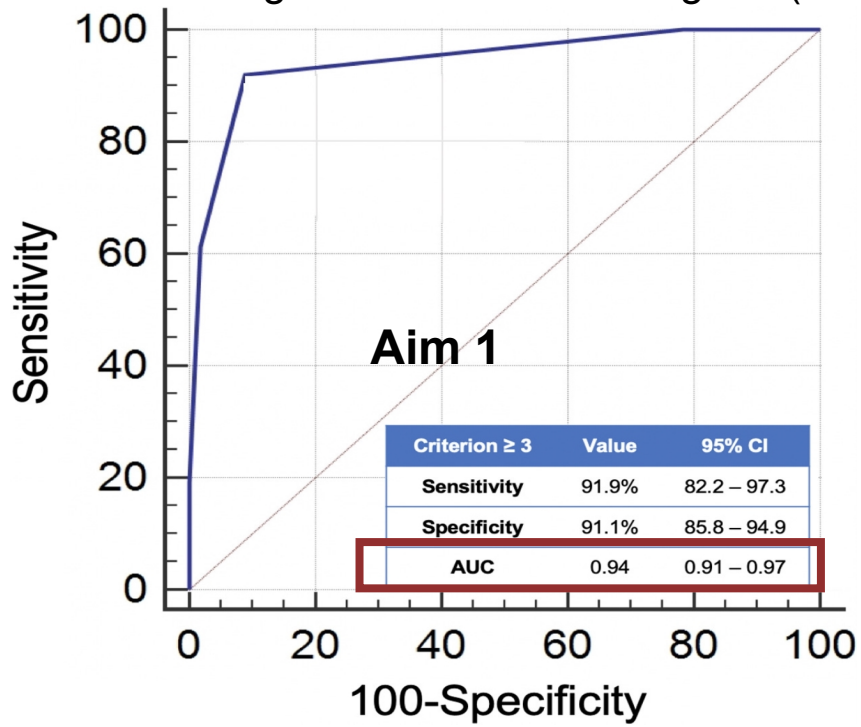
Patients Prep:

✓ intravenous antispasmodic agent
✓ 500–1000 ml of water 30 min before

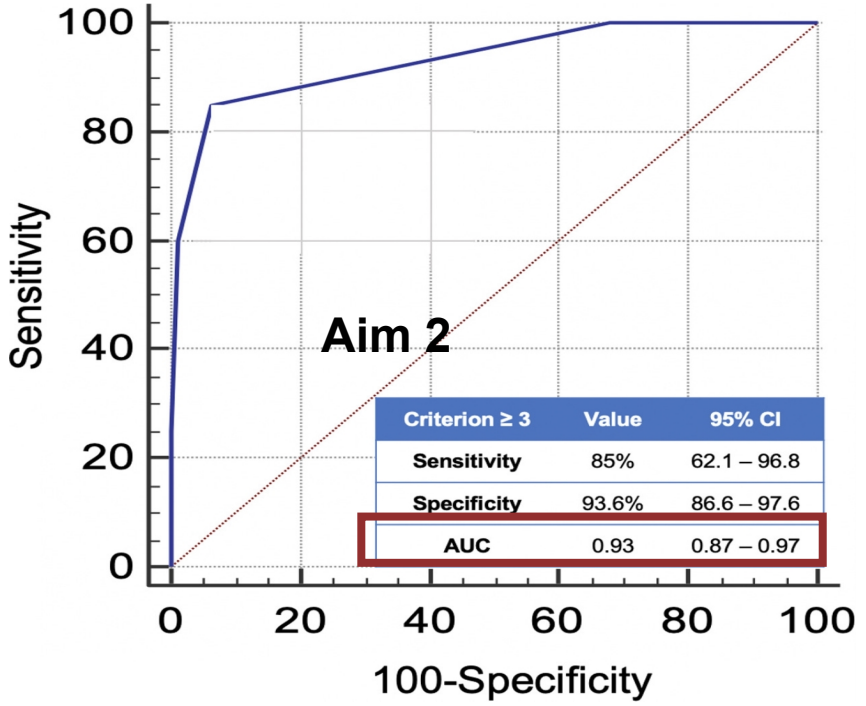


❖ BCa MRI Pathway

- **Aim I, Clinical application** on BCa management: VI-RADS score properly **differentiate and stratify the risk of patients** with superficial or muscle-invasive disease before TURBT
  - Sensitivity and specificity were **91.9% and 91.1%**
  - Inter-reader agreement was overall good (**K: 0.81**)



- **Aim II, Clinical application** on NMIBC management: Identify those who could potentially **avoid Re-TURBT**, and those who absolutely **should not miss Re-TURBT**
- Sensitivity and specificity were **85% and 93.6%,** to identify patients diagnosed with MIBC at Re-TURBT.



VI-RADS score is a novel imaging tool leading urologist to properly differentiate patients with NMI vs. MIBC before