



KCRS22 **Kidney Cancer Research Summit**

A Randomized Trial of Radium-223 Dichloride and Cabozantinib in Patients with Advanced Renal Cell Carcinoma with Bone Metastases (RADICAL / Alliance A031801)

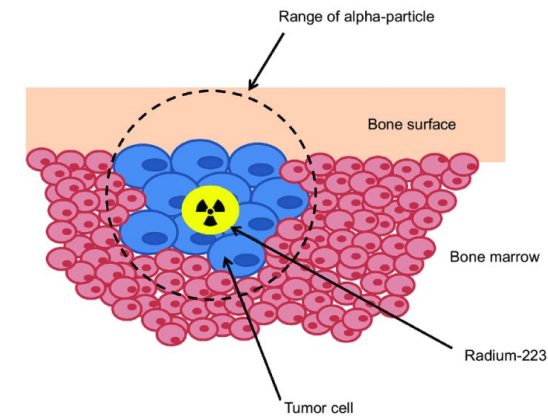
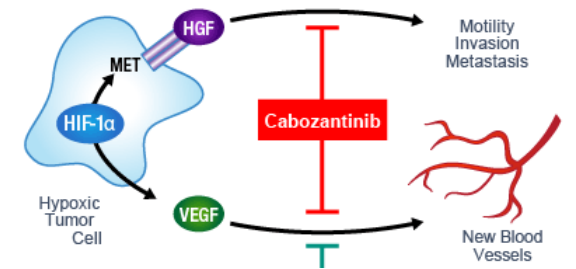
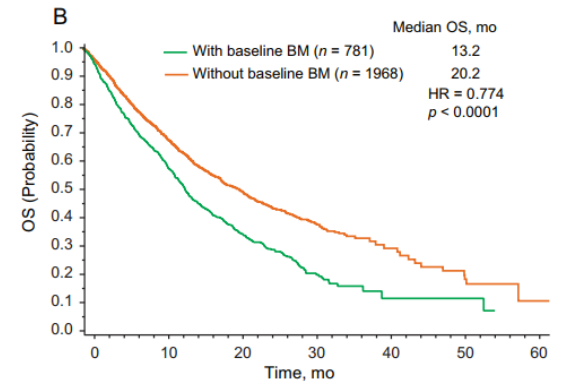
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Rationale for Radium-223 + TKI

- 30% of patients with RCC have bone metastases
- Bone metastases are associated with worse morbidity and mortality
- Cabozantinib is a dual VEGF/cMET TKI with known activity in the bone
- Radium-223 is an alpha-emitting radiopharmaceutical which demonstrated improved overall survival in mCRPC
- Pilot study of radium-223 + TKI demonstrated safety, declines in bone turnover markers, and signal of efficacy



RCC=Renal cell carcinoma; TKI=Tyrosine kinase inhibitor; VEGF=Vascular endothelial growth factor; mCRPC=Metastatic castration resistant prostate cancer.

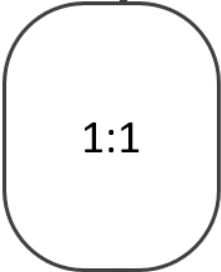
RADICAL Schema

Eligibility

- Any RCC histology
- ≥ 1 untreated bone metastases
- KPS $\geq 60\%$

Stratification

- Prior/concurrent osteoclast-targeted therapy use
- IMDC Risk Group
- Prior treatment
- Opioid use



Cabozantinib
40-60 mg PO daily
+
Radium-223
55 kBq/kg IV q28 days x 6 injections

Cabozantinib
60 mg qd PO

Endpoints

- **Primary** SSE-free survival
- **Secondary** Safety, SSE-free survival in subsets, ORR, PFS, OS, MDA Bone Response

N=210 (non-clear cell cap at 20%)
90% power, $\alpha=0.025$ (one-sided)
Detect improvement of 6-month SSE-FS from 65% to 78%

Imaging, QOL, biomarker assessment every 8 weeks

Acknowledgements

- Toni Choueiri (Co-Chair)
- Tareq Al Baghdadi (Community Co-Chair)
- Ron Chen (QOL Co-Chair)
- Young Kwok (Radiation Oncology Co-Chair)
- Atish Choudhury (Correlative Co-Chair)
- Heather Jacene (Imaging Co-Chair)
- Suzanne Cole (ECOG Champion)
- Mamta Parikh (SWOG Champion)
- Brain Baumann (NRG Champion)
- Michael Morris (Disease Committee Chair)
- Misha Beltran (Correlative Committee Chair)
- Pamela Atherton (Primary Statistician)
- Tyler Zemla (QOL Statistician)
- Gabriela Perez-Burbano (Staff Statistician)
- Shiva Baghaie (Protocol Coordinator)
- Janet Koball (Data Manager)