

VEGF single nucleotide polymorphisms (SNPs) and correlation to sunitinib-induced hypertension (HTN) in metastatic renal cell carcinoma (mRCC) patients (pts).

Sub-category:

Kidney Cancer

Category:

Genitourinary Cancer

Meeting:

2009 ASCO Annual Meeting

Session Type and Session Title:

Clinical Science Symposium, Targeted Therapy in Metastatic Renal Cell Carcinoma: The Biology of Response, Resistance, and Clinical Therapeutics

Abstract No:

5005

Citation:

J Clin Oncol 27:15s, 2009 (suppl; abstr 5005)

Author(s):

J. J. Kim, S. A. Vaziri, P. Elson, B. I. Rini, M. K. Ganapathi, R. Ganapathi; Cleveland Clinic, Cleveland, OH; Cleveland Clinic, Cleveland, OH

Abstract Disclosures

Faculty and Discussant Disclosures

Annual Meeting Planning Committee Disclosures

2009 Annual Meeting Proceedings Part I Errata

Abstract:

Background: VEGF SNPs (-634 C/C and -1498 T/T) have been associated with protection from grade III/IV HTN in breast cancer pts receiving bevacizumab plus paclitaxel (J Clin Oncol. 26:4672-4678). The aim of this study was to retrospectively evaluate the association among VEGF SNPs and the development of HTN in mRCC pts receiving sunitinib. Methods: mRCC patients receiving sunitinib (50mg 4/2) with available blood pressure (BP) data and germline DNA were retrospectively identified. All BP measurements were recorded in clinic approximately every 4 weeks. Genomic DNA was isolated from peripheral blood lymphocytes. VEGF SNP's -634 C/G (5'UTR polymorphism, NCBI reference sequence #2010963), and -1498 C/T (promoter polymorphism NCBI reference sequence #833061) were amplified using primers designed to flanking sequences for the respective SNPs. Genotypes were assigned following sequence analysis. Data were analyzed using parametric and non-parametric methods. Results: Sixty-four patients were identified of which 63 had available SNP data; 78% were male; median age was 60 (range 35-80); 67% ECOG performance status of 0; 89% prior nephrectomy and 63% previously treated with cytokines (48%) and/or a TKI (24%). Median systolic and diastolic BPs at baseline were 139 mmHg (range, 93-190) and 80 mmHg (range, 47-103), respectively; 57% of patients were being treated with anti-hypertensive therapies at baseline. The distribution of pts for the VEGF-634 genotype was C/C (10%), C/G (33%) and G/G (57%). VEGF-634 C/C < C/G < G/G genotypes were associated with increasing frequency and duration of HTN (diastolic > 90 mmHg and/or systolic > 150 mmHg) during treatment with sunitinib (p = 0.03 and p = 0.007, respectively) and remained significant adjusting for baseline BP and use of anti-HTN meds (p = 0.05 and 0.02, respectively). Similar correlations were not found for VEGF-1498 genotypes. There was no association between

VEGF SNPs and tumor volume reduction or PFS. Conclusions: VEGF SNP-634 G/G genotype is correlated with HTN during treatment with sunitinib in mRCC pts.

► **Associated Presentation(s):**

1. VEGF single nucleotide polymorphisms (SNPs) and correlation to sunitinib-induced hypertension (HTN) in metastatic renal cell carcinoma (mRCC) patients (pts).

Meeting: 2009 ASCO Annual Meeting

Presenter: Jenny J Kim

Session: Targeted Therapy in Metastatic Renal Cell Carcinoma: The Biology of Response, Resistance, and Clinical Therapeutics (Clinical Science Symposium)

► **Other Abstracts in this Sub-Category:**

1. Use of CA9 gene single nucleotide polymorphisms to predict prognosis and treatment response of metastatic renal cell carcinoma.

Meeting: 2009 ASCO Annual Meeting Abstract No: 5003 First Author: M. de Martino

Category: Genitourinary Cancer - Kidney Cancer

2. Phase II presurgical study of bevacizumab plus erlotinib in untreated patients with metastatic renal cell carcinoma.

Meeting: 2009 ASCO Annual Meeting Abstract No: 5004 First Author: E. Jonasch

Category: Genitourinary Cancer - Kidney Cancer

3. Pharmacogenetic pathway analysis for determination of sunitinib-induced toxicity.

Meeting: 2009 ASCO Annual Meeting Abstract No: 5006 First Author: N. van Erp

Category: Genitourinary Cancer - Kidney Cancer

[More...](#)

► **Abstracts by J. J. Kim:**

1. RTOG 0438: A phase I trial of highly conformal radiation therapy for patients with liver metastases.

Meeting: 2012 Gastrointestinal Cancers Symposium Abstract No: 257 First Author: Alan W. Katz

Category: Cancers of the Pancreas, Small Bowel, and Hepatobiliary Tract - Multidisciplinary Treatment

2. Adjuvant sunitinib (Su) for locally advanced esophageal cancer (LAEC): Results of a phase II trial.

Meeting: 2011 ASCO Annual Meeting Abstract No: 4091 First Author: J. J. Knox

Category: Gastrointestinal (Noncolorectal) Cancer - Esophageal, Gastric, or Small Bowel

3. Outcomes following sequential trials of stereotactic body radiotherapy (SBRT) for hepatocellular carcinoma (HCC).

Meeting: 2011 ASCO Annual Meeting Abstract No: 4111 First Author: A. Bujold

Category: Gastrointestinal (Noncolorectal) Cancer - [Hepatobiliary Cancer](#)

[More...](#)

► [Presentations by J. J. Kim:](#)

1. Role of VEGF and VEGFR2 single nucleotide polymorphisms (SNPs) in predicting treatment-induced hypertension (HTN) and clinical outcome (CO) in metastatic clear cell RCC (mccRCC) patients (pts) treated with sunitinib.

Meeting: [2010 ASCO Annual Meeting](#)

Presenter: [Jenny J. Kim](#)

Session: [Genitourinary Cancer \(General Poster Session\)](#)

2. VEGF single nucleotide polymorphisms (SNPs) and correlation to baseline and sunitinib-induced hypertension (HTN) in metastatic renal cell carcinoma (mRCC) patients (pts)

Meeting: [2010 Genitourinary Cancers Symposium](#)

Presenter: [Jenny J. Kim, MD](#)

Session: [Reception and General Poster Session D: Testis, Bladder, Renal and Other GU Neoplasms \(General Poster Session\)](#)

3. VEGF single nucleotide polymorphisms (SNPs) and correlation to sunitinib-induced hypertension (HTN) in metastatic renal cell carcinoma (mRCC) patients (pts).

Meeting: [2009 ASCO Annual Meeting](#)

Presenter: [Jenny J Kim, MD, MS](#)

Session: [Targeted Therapy in Metastatic Renal Cell Carcinoma: The Biology of Response, Resistance, and Clinical Therapeutics \(Clinical Science Symposium\)](#)

[More...](#)

► [Educational Book Manuscripts by J. J. Kim:](#)

No items found.