PRINT: ISSN 0972-3757 ONLINE: ISSN 2456-6330
International Journal of
HUMAN GENETICS

Full text open access online (Since 2001)
Int J Hum Genet, 22(4): 256-264 (2022)

DOI: 10.31901/24566330.2022/22.04.813
PRINT: ISSN 0972-3757 ONLINE: ISSN 2456-6330

Effects of EGFR Mutations on NSCLC Patients Treated by Ramucirumab plus Docetaxel

Huanxiu Gong[1] and Peifeng Hou[2, 3, 4,*]

[1]Department of Respiratory Medicine, Zhuji Affiliated Hospital of Shaoxing University, Zhuji 311800, Zhejiang Province, China
[2]Department of Oncology, Fujian Medical University Union Hospital, Fuzhou 350000, Fujian Province, China
[3]Fujian Key Laboratory of Translational Cancer Medicine, Fuzhou 350000, Fujian Province, China
[4]Fujian Medical University Stem Cell Research Institute, Fuzhou 350000, Fujian Province, China

KEYWORDS Brain Metastasis. Docetaxel. EGFR Mutation Status. Ramucirumab. Survival

ABSTRACT The present paper attempted to define the effects of epidermal growth factor receptor (EGFR) mutations on patients with non-small cell lung cancer (NSCLC) treated by ramucirumab plus docetaxel. Of the 82 enrolled patients, 48 underwent EGFR mutations, showing relevance to sex and smoking history ($P<0.05$). The analysis yielded that EGFR-mutant (EGFR-Mut) group had a higher objective response rate versus EGFR-wild-type (EGFR-Wt) group ($P<0.05$). Subsequent to treatment, serum VEGF, bFGF, HDGF, CEA, CA153, CYFRA21-1 and CA199 levels dropped more significantly in EGFR-Mut group ($P<0.05$). Beyond that, EGFR-Mut exhibited a lower ZPS score and a higher KPS score versus EGFR-Wt group ($P<0.05$). Further, EGFR-Mut patients displayed strikingly longer median survival time versus EGFR-Wt patients ($P<0.05$). Ramucirumab plus docetaxel can safely inhibit tumour angiogenesis and regulate the levels of serum tumour markers. EGFR-Mut NSCLC patients with brain metastasis have better treatment outcomes and longer survival.