Abstract 5990

Retrospective multicenter study in Non Small Cell Lung Cancer (NSCLC) patients with epidermal growth factor receptor (EGFR) activating mutation treated first-line tyrosine kinase inhibitor (TKI): Evaluation of progression according to RECIST, therapeutic approach and its effect

J.B. Auliac[1], C. Fournier[2], C. Audigier Valette[3], M. Perol[4], A. Bizieux[5], I. Monnet[6], C. Decroisette Phan van Ho[7], S. Bota Ouchlif[8], R. Corre[9], G. Le Garff[10], P. Fournel[11], N. Baize[12], R. Lamy[13], A. Vergnenegre[14], D. Arpin[15], B. Marin[16], L. Greillier[2], R. Gervais[17] [1]Mantes La Jolie/FR, [2]Marseille/FR, [3]Toulon/FR, [4]Lyon/FR, [5]La Roche Sur Yon/FR, [6]Creteil/FR, [7]Prigny/FR, [8]Rouen/FR, [9]Rennes/FR, [10]Saint Brieux/FR, [11]Saint-Priest En Jarez/FR, [12]Angers/FR, [13]Lorient/FR, [14]Limoges Cedex/FR, [15]Macon/FR, [16]Limoges/FR, [17]Caen/FR

Background :

EGFR-TKI are a standard treatment for patients (pts) with NSCLC harboring activating EGFR mutations. All pts develop acquired resistance. At progression, the standard treatment is chemotherapy. Retrospective studies suggest that continuous use of EGFR-TKI beyond progressive disease (PD) may benefit some pts.

Objective:The purpose of our retrospective multicentric study is to determine the frequency of continuation of EGFR-TKIs beyond RECIST-PD, and investigate the association of pts and disease characteristics with continuation of EGFR-TKIs at progression.

Methods

Main inclusion criteria were: pts with NSCLC and activating EGFR mutations, EGFR-TKIs as their initial systemic therapy received between January 2010 and July 2012, Measurable lesion according to RECIST 1.1, acquired resistance to EGFR-TKI according to Jackman's criteria. Following data were collected: demographic and clinical data, Progression free survival (PFS), Overall Survival (OS), mutational status, mode of progression, therapeutic approach at PD. A comparison of clinical data and outcome of pts receiving EGFR-TKI beyond PD (group 1) versus discontinuing EGFR-TKI at PD (group 2) was made.

Results

133 pts were recruited in 29 centers: age 69 ± 12.7 years, female 67.6%, EGFR mutation exon 19/21/others: 65.4 %/ 30.8%/ 3.8%, adenocarcinoma 98%, never smokers 68.5%, PS 0/1: 80,5%. First line treatment: gefitinib 77.4%, erlotinib 21.8%.

40.6% pts continued EGFR-TKI beyond RECIST-PD (25,6% EGFR-TKI alone, 15% EGFR-TKI combined with local treatment). 59.3% pts changed treatment (39.8% chemotherapy, 7.5% combination chemotherapy +EGFR-TKI, 12% BSC).

Median PFS was 9,4 (CI95% :8-10,9) months and median OS was 21,6 (CI95%18,7-25,8) months in the entire population. In group 1 and 2, m PFS was 10,1 (CI95% :7,7-12,3) and 8,7 (CI 95% :7,5-10,9) (p=0,34) months and m OS was 23 and 20,4 months respectively (p=0,08).

All comparative data between groups 1 and 2, univariate and mutivariate analysis will be presented.

Conclusions

This large retrospective study confirms that, in some circumstances, continuous use of EGFR-TKI beyond PD does not hamper OS and should be considered.Prospective studies will help to determine which patients benefit more this strategy.

Clinical trial information: Supported by an academic grant from boehringer ingelheim, Hoffman Roche

Background :

EGFR-TKI are a standard treatment for patients (pts) with NSCLC harboring activating EGFR mutations. All pts develop acquired resistance. At progression, the standard treatment is chemotherapy. Retrospective studies suggest that continuous use of EGFR-TKI beyond progressive disease (PD) may benefit some pts.

Objective:The purpose of our retrospective multicentric study is to determine the frequency of continuation of EGFR-TKIs beyond RECIST-PD, and investigate the association of pts and disease characteristics with continuation of EGFR-TKIs at progression.

Methods

Main inclusion criteria were: pts with NSCLC and activating EGFR mutations, EGFR-TKIs as their initial systemic therapy received between January 2010 and July 2012, Measurable lesion according to RECIST 1.1, acquired resistance to EGFR-TKI according to Jackman's criteria. Following data were collected: demographic and clinical data, Progression free survival (PFS), Overall Survival (OS), mutational status, mode of progression, therapeutic approach at PD. A comparison of clinical data and outcome of pts receiving EGFR-TKI beyond PD (group 1) versus discontinuing EGFR-TKI at PD (group 2) was made.

Results

133 pts were recruited in 29 centers: age 69 ± 12.7 years, female 67.6%, EGFR mutation exon 19/21/others: 65.4 %/ 30.8%/ 3.8%, adenocarcinoma 98%, never smokers 68.5%, PS 0/1: 80,5%. First line treatment: gefitinib 77.4%, erlotinib 21.8%.

40.6% pts continued EGFR-TKI beyond RECIST-PD (25,6% EGFR-TKI alone, 15% EGFR-TKI combined with local treatment). 59.3% pts changed treatment (39.8% chemotherapy, 7.5% combination chemotherapy +EGFR-TKI, 12% BSC).

Median PFS was 9,4 (CI95% :8-10,9) months and median OS was 21,6 (CI95%18,7-25,8) months in the entire population. In group 1 and 2, m PFS was 10,1 (CI95% :7,7-12,3) and 8,7 (CI 95% :7,5-10,9) (p=0,34) months and m OS was 23 and 20,4 months respectively (p=0,08).

Conclusions : This large retrospective study confirms that, in some circumstances, continuous use of EGFR-TKI beyond PD does not hamper OS and should be considered.Prospective studies will help to determine which patients benefit more this strategy.