#330 - Efficacy and safety of immune checkpoint inhibitors in previously treated metastatic non-small cell lung cancer

Renato Cunha[a], Marta Fernandes[b], Sofia Abreu[b], Cristina Oliveira[b], João Dias[b], Sara Alves[b], Ana Rodrigues[b], Júlio Oliveira[b], Inês Pousa[b], Marta Soares[b], Isabel Azevedo[b]

[a]Hospital do Espírito Santo de Évora, [b]Instituto Português de Oncologia do Porto
Head of Department: Prof. Doutora Deolinda Pereira

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Corresponding author:
- Renato Cunha - hrcunha11@gmail.com

Introduction:

Non small cell lung cancer (NSCLC) is diagnosed frequently in advanced stages.

Immune checkpoint inhibitors (ICI) changed the paradigm of cancer treatment.

Checkmate 017, Checkmate 057, KEYNOTE-010 and OAK reported overall response rates (ORR) 14 to 20% and overall survival (OS) 9 to 14 months.

ICIs are standard of care after progression to first-line treatment.

Objectives:

Evaluate real-life efficacy and safety.
Analyze factors related with survival.
Compare different treatment options.

Methods:

Retrospective observational study of patients with metastatic NSCLC treated in second or further line with ICIs, from 2015 to 2019.

Statistical analysis with Excel® and IBM SPSS software v.25®.

OS and progression-free survival (PFS) using Kaplan-Meier curves.

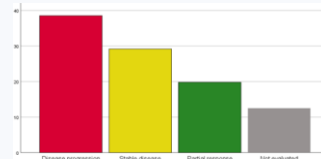Factors associated with survival using Cox regression analysis.

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96 patients
65 years-old, 80% male
76% ever-smokers
91% ECOG-PS 0-1

73% adenocarcinoma
33% PD-L1 negative
44% 2nd line

Nivolumab 43%
Pembrolizumab 40%
Atezolizumab 18%

Follow-up 27,3 months
Treatment time 3,8 months

7% grade 3-4 adverse events
9% discontinuation
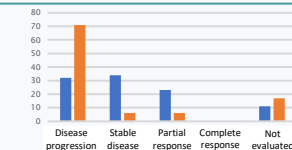
ORR 20% / DCR 49% / PD 39%

PFS (months)
Global 4,5 (2,45-6,55)
6-month 43,4%
12-month 21,6%

OS (months)
Global 10,9 (7,16-14,64)
6-month 43,4%
12-month 21,6%

ECOG-PS 0-1 HR **0.25**, p **0,005**

ECOG-PS 0-1 HR **0.18**, p **0,001**

Anti-PD-1 vs. Anti-PD-L1

79 vs. 17 patients
PD-L1 negative: 29% vs. 53%
≥4th linha: 48% vs. 12%

Follow-up 28 vs. 10 months
Treatment time 5 vs. 3 months
  HR **0.35, p 0,002**
DCR 57% vs. 12%
  OR **9.93; p 0.001**
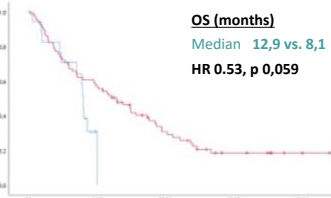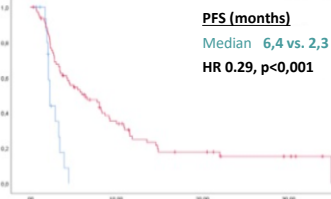PD 32% vs. 71%

PFS 6,4 vs. 2,3 months
  HR **0.29; p<0,001**
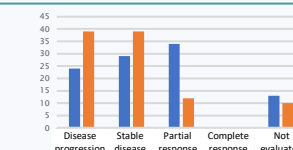
OS 12,9 vs. 8,1 months
  HR **0.53; p 0,059**

7% vs. 0% EA grade 3-4
  OR 1.63, p 0,202

PFS (months)
Median 6,4 vs. 2,3
HR 0.29, p<0,001

OS (months)
Median 12,9 vs. 8,1
HR 0.53, p 0,059

Pembrolizumab vs. Nivolumab

38 vs. 41 patients
PD-L1 positive 100% vs. 5%
≥4th line 32% vs. 63%

Follow-up 35 vs. 25 months
Treatment time 6 vs. 5 months
  HR 0.75, p 0,280

ORR 34% vs. 12%
  OR **3.74; p 0.020**
DCR 63% vs. 51%
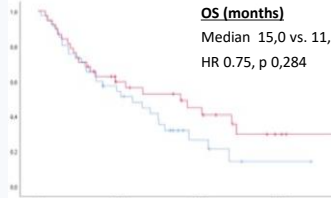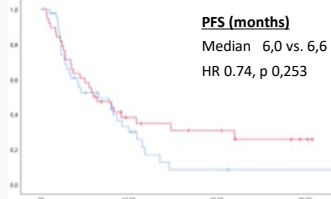 OR 1.63; p 0,284
PD 24% vs. 39%

PFS 6,0 vs. 6,6 months
  HR 0.74; p 0,253

OS 15,0 vs. 11,7 months
  HR 0.75; p 0,284

11% vs. 7% EA grade 3-4
  OR 0.25, p 0,616

PFS (months)
Median 6,0 vs. 6,6
HR 0.74 p 0,253

OS (months)
Median 15,0 vs. 11,7
HR 0.75, p 0,284

Conclusions:

Real life efficacy and safety was similar to trials with ICI after progression to first-line treatment.
Only ECOG-PS 0-1 was significantly associated with better survival.
Anti-PD-1 were superior to anti-PD-L1 in most efficacy parameters, presenting a strong tendency in OS. There were no clear differences between different anti-PD-1.
Longer follow-up and bigger population are needed to clarify differences between treatments.

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Rittmeyer A, Barlesi F, Waterkamp D, et al., Atezolizumab versus docetaxel in patients with previously treated non-small-cell lung cancer (OAK): a phase 3, openlabel, multicentre randomised controlled trial. Lancet. 389(2017):255–265.