SO-3 Treatment sequences and prognostic factors in metastatic pancreatic ductal adenocarcinoma: Univariate and multivariate analyses of a real-world study in Europe

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Background: As real-world data are limited concerning treatment sequences and prognostic factors for metastatic pancreatic adenocarcinoma (mPAC) in Europe, univariate and multivariate analyses of this retrospective, observational, chart-review study were performed to assess treatment patterns/sequences as well as outcomes. Here, we report on treatment sequencing and data from the multivariate analysis.

Methods: This study involved medical oncologists and gastroenterologists from France, Germany, Italy, Spain, and the UK who completed online patient reports for 20 consecutive patients diagnosed with PAC between January and October 2016 (n=6000), where the focus of this analysis was on those patients who were diagnosed with mPAC (n=3827). Reports provided information on treatment sequences of mPAC and how treatment sequences affected overall survival (OS). Univariate analysis and multivariate Cox regression of OS were also done on patients treated with one of six first- and second-line (1L+2L) treatment sequences of interest (n=915) to determine some prognostic factors. The treatment (trt) sequences were as follows: (trt1) gemcitabine + nab-paclitaxel followed by fluoropyrimidine combinations (n=286); (trt2) (m)FOLFIRINOX followed by gemcitabine combinations (n=263); (trt3) (m) FOLFIRINOX followed by gemcitabine monotherapy (n=228); (trt4) gemcitabine + nab-paclitaxel followed by fluoropyrimidine monotherapy (n=65); (trt5) gemcitabine monotherapy followed by fluoropyrimidine monotherapy (n=41); (trt6) gemcitabine monotherapy followed by fluoropyrimidine combinations (n=32).

Results: Of the patients with mPAC at diagnosis, 89.7% (3432) received a first-line (1L) treatment, with 35.5% (1218) receiving a second-line (2L) and 6.7% (229) a third-line. In terms of treatment sequencing (1L+2L), the most common sequences were (i) gemcitabine + nab-paclitaxel followed by fluoropyrimidine combinations (24%); (ii) modified (m)FOLFIRINOX followed by gemcitabine combinations (22%); and (iii) (m) FOLFIRINOX followed by gemcitabine monotherapy (19%). The patient characteristics were more favorable with (m)FOLFIRINOX compared with the other regimens used in first line. The median OS was 19.1 months for (m)FOLFIRINOX followed by gemcitabine combinations, 15.2 months for gem/nab-P followed by fluoropyrimidine combinations and 14.8 months for (m)FOLFIRINOX followed by gemcitabine monotherapy. Based on data from the univariate analysis, treatment, age, sex, body mass index, disease grade, liver metastases, lung metastases, comorbidities, tumour location, performance status (PS) and CA19-9 were selected as candidates for the multivariate analysis. The multivariate analysis showed that prognostic factors were (i) liver metastases (no vs yes: HR=0.397; $p < 0.0001$); (ii) treatments (1L+2L) ($p < 0.0001$) (trt2 vs 5: HR=0.424; trt1 vs 5: HR=0.601; trt4 vs 5: HR=0.645; trt3 vs 5: HR=0.665; trt6 vs 5: HR=0.787); (iii) PS (ECOG 0-1 vs $\geq$2: HR=0.448; $p < 0.0001$), (iv) CA19-9 ($<$ 400 U/ml [n=376] vs $\geq$400 [n=468]: HR=0.747; p=0.0004); (v) lung metastases (no vs yes: HR=0.789; p=0.0049) and (vi) sex (male [n=508] vs female [n=336]: HR=0.828; p=0.0228).

Conclusions: This large real-life study highlighted a clear picture of treatment sequences (first line followed by a second line) in European real-world clinical practice and outcomes for patients with mPAC. Treatment sequences were in accordance with the ESMO guidelines at the time of the study. Liver metastases, treatment sequences, PS, CA19-9, lung metastases and sex were significant independent prognostic factors of OS in this study.

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