1676P. Nutritional assessment in the era of targeted therapies in advanced Non-Small Cell Lung Cancer (aNSCLC) oncogene addicted patients

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BACKGROUND

Pre-treatment nutritional status is an important prognostic factor in aNSCLC patients (pts). However, its value is not yet clarified in those receiving targeted therapies, including tyrosine kinase inhibitors (TKIs). The aim of present study was to define an algorithm for early identification and treatment of malnourished pts with aNSCLC oncogene addicted.

METHODS

In aNSCLC oncogene addicted pts (EGFR mutated or *other*) a nutritional screening was performed before starting TKIs therapy. Body mass index (BMI;kg/m^2), handgrip strength (kg), previous 6-months weight changes (%), albumin levels (g/dl) and Prognostic Nutritional Index-PNI (10 × serum albumin (g/dl) + 0.005 × total lymphocyte count (per mm^3) were collected. Correlations between the nutritional parameters and the clinicopathological characteristics were analysed using *t-Student test*.

pts	49
Median age (range)	67 (35-84)
male/female	12/37
EGFR/other	32/17
BMI 18.5-24.9 (G1)	32
BMI≥ 25 (G2)	14
BMI≤ 18.5 (G3)	3

Table 1. Pts' characteristics

RESULTS

In Table 1, pts' characteristics. In G2 (Table 2), pts presented higher functional index (handgrip), higher 6-months weight gain, were less frequently EGFR mutated. Furthermore, they had lower albumin levels and PNI scores. Grouping pts according to tumor mutation (EGFR vs *other*), mean BMI was 22.3 (4.1) vs 25.4 (6.3) (p=0.04); mean 6-months weight change was -3.5 kg (9.5) vs +3.4 kg (10.2) (p=0.02). Pts with mutation *other* than EGFR presented more frequently BMI ≥25: 9/15 (60%) vs 5/31 (16.1%) (p=0.01).

Table 2. Preliminary results according BMI

	G1	G2	p-value
Handgrip strength (Kg) (mean)	22.8 (6.8)	28.2 (11.1)	p=0.05
6-months weight change (mean)	-4.1 Kg(6.5)	+7.2 Kg(12.1)	p<0.001
Albumin level (g/dl) (mean)	3.5 (0.5)	3.2 (0.4)	p=0.05
PNI score (mean)	34.9 (5.3)	31.7 (3.6)	p=0.05

CONCLUSION

According to our preliminary data, aNSCLC oncogene addicted pts with BMI>25 presented with higher functional indexes, but with worst nutritional parameters, so that they may worth fully nutritional assessment and counselling to prevent or treat sarcopenic obesity.

REFERENCES

- Morel H, Lung Cancer, p. 126:55–63, 2018
- Zamboni M, Curr Opin Clin Nutr Metab Care, pp. Jan;22(1):13-19, 2019.

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Morelli AM has no COI to declare