

XXXII CONGRESSO NAZIONALE AIRO
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AIRO2022

Radioterapia di precisione per un'oncologia innovativa e sostenibile

BOLOGNA, 25-27 NOVEMBRE
PALAZZO DEI CONGRESSI

 Associazione Italiana
Radioterapia e Oncologia clinica

 Società Italiana di Radiobiologia

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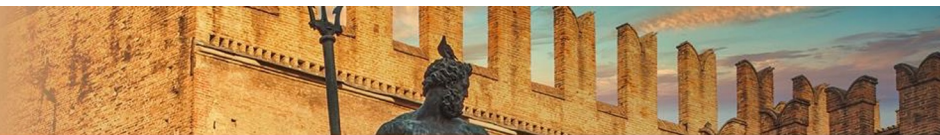
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THE PROGNOSTIC VALUE OF NEUTROPHILS TO LYMPHOCYTES RATIO (NLR) IN PATIENTS WITH STAGE III NSCLC TREATED WITH RADIO-CHEMOTHERAPY: A RETROSPECTIVE MULTICENTRE ANALYSIS

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DICHIARAZIONE

Relatore: GIULIO FROSINI

Come da nuova regolamentazione della Commissione Nazionale per la Formazione Continua del Ministero della Salute, è richiesta la trasparenza delle fonti di finanziamento e dei rapporti con soggetti portatori di interessi commerciali in campo sanitario.

- Posizione di dipendente in aziende con interessi commerciali in campo sanitario: **NIENTE DA DICHIARARE**
- Consulenza ad aziende con interessi commerciali in campo sanitario: **NIENTE DA DICHIARARE**
- Fondi per la ricerca da aziende con interessi commerciali in campo sanitario: **NIENTE DA DICHIARARE**
- Partecipazione ad Advisory Board: **NIENTE DA DICHIARARE**
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- Partecipazioni azionarie in aziende con interessi commerciali in campo sanitario: **NIENTE DA DICHIARARE**



BACKGROUND

- Neutrophils to Lymphocytes Ratio (NLR) is one of the most important host-related prognostic factors for many solid tumors
- NLR demonstrated to be an independent prognostic factor of poor survival for advanced non-small cell lung cancer (NSCLC)^{2,3}, in particular for EGFR mutated patients⁴

1. Templeton AJ, J Natl Cancer Inst 2014
2. Bagley SJ et al, Lung Cancer 2019
3. Sandfeld-Paulsen B et al, Acta Oncol 2019
4. Minami S et al, World J Oncol 2017



AIMS

- To evaluate the prognostic value of NLR in stage III NSCLC treated with sequential or concomitant radio-chemotherapy



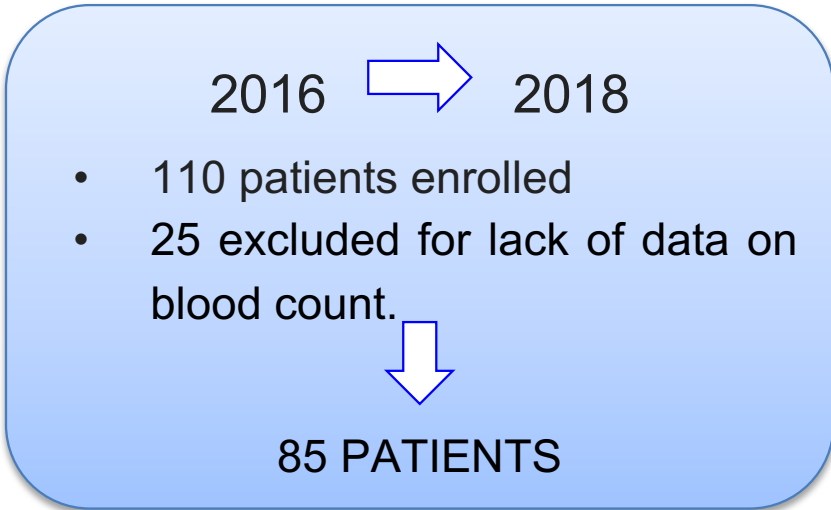
METHODS

Retrospective Multicentric Analysis

- Stage III NSCLC patient treated with definitive radio-chemotherapy from 5 radiotherapy italian centers
- NLR obtained from the blood tests taken at the beginning and at the end of the radio-chemotherapy treatment
- Univariate and multivariate analysis using cox-regression test were performed in order to correlate different cut-offs of NLR to patient clinical outcomes (OS, PFS, LC)

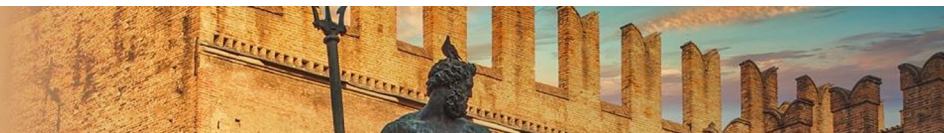


PATIENTS



Median follow up: 21,8 months
 (range 4 - 110)

Age	≤60 years: 28 patients (32.9%) 61-70 years: 28 patients (32.9%) >70 years: 29 patients (34.2%)
PS ECOG	0: 51 patients (60%) 1: 34 patients (40%)
STAGE	IIIA: 37 patients (43.5%) IIIB: 39 patients (45.9%) IIIC: 9 patients (10.6%)
HISTOLOGY	Adenocarcinoma: 43 patients (50.6%) Squamous Cell: 37 patients (43.5%) Mixed/Not differentiated: 5 patients (5.9%)
PDL1	Negative: 8 patients (9.4%) <50%: 9 patients (10.6%) >50%: 3 patients (3.5%) Unknown: 65 patients (76.5%)



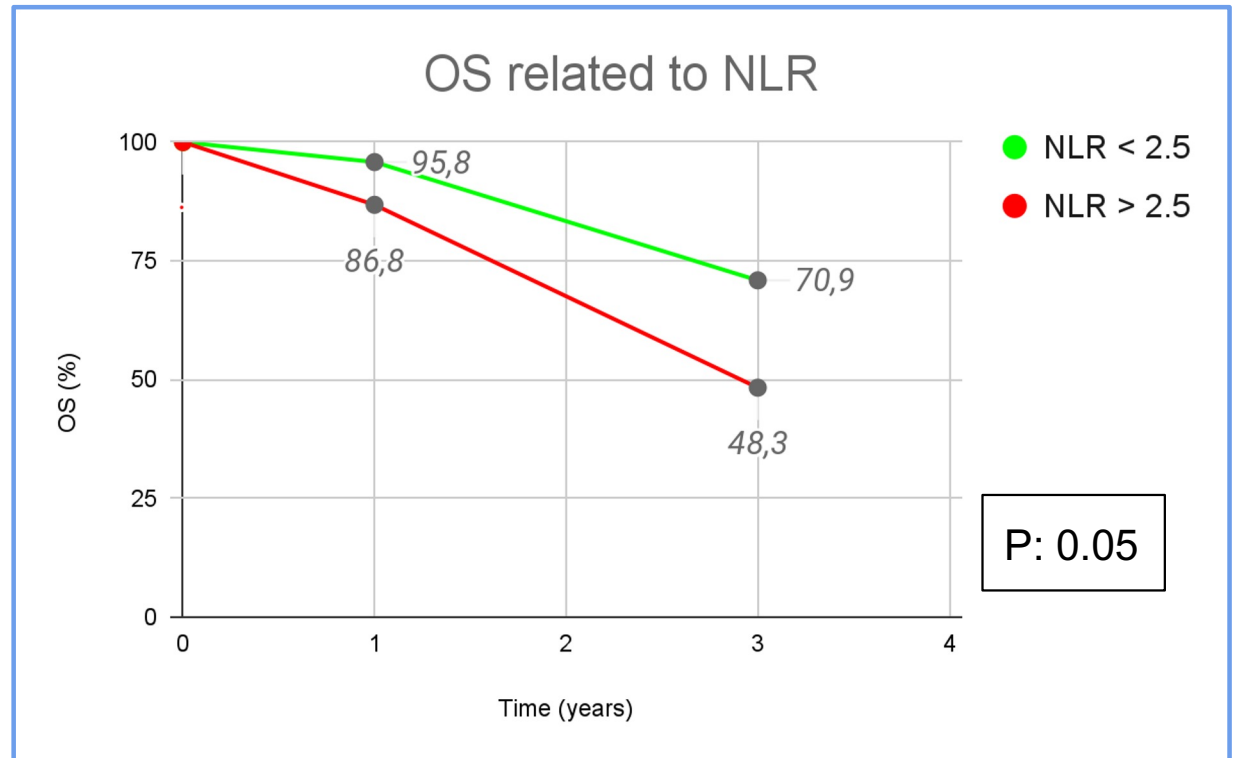
TREATMENT

RT-CHT regimen	<p>Concomitant: 56 patients (66%) Sequential: 29 patients (34%)</p>
CHT regimen	<p>CDDP-Etoposide: 19 patients (33%) CDDP-Vinorelbine: 19 patients (33%) CBDCA-Paclitaxel: 20 patients (34%)</p>
RT in concomitant regimen	<ul style="list-style-type: none"> • Median Dose: 61.6 Gy (Range 48-74 Gy) • All normofractionated schedule
RT in sequential schedule	<ul style="list-style-type: none"> • Median Dose: 61.1 Gy (Range 44-66 Gy) • Schedule: <ul style="list-style-type: none"> - Normofractionated: 90% - Moderately Hypofractionated: 10%



RESULTS

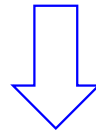
- Higher NLR was related with lower OS (p: 0.05)
- On subgroups analysis higher NLR was related to stage IIIC NSCLC compared to stage IIIA and IIIB (p: 0.09)





CONCLUSIONS

- NLR > 2.5 is a prognostic factor for poor OS for stage III NSCLC
- Higher NLR was related to a higher disease burden (Stage IIIC)



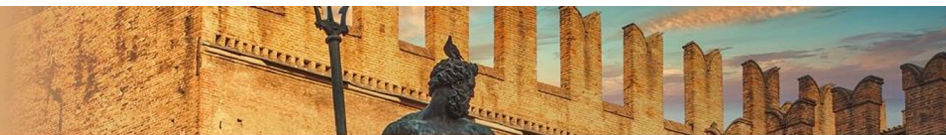
Prognostic value of NLR also for stage III NSCLC confirmed

- Further analysis on patients receiving immunotherapy after radio-chemotherapy treatment will be analyzed from the “NEUTRALITY TRIAL” which is still ongoing

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THANK YOU FOR YOUR KIND ATTENTION!