



XXXII CONGRESSO NAZIONALE AIRO
XXXIII CONGRESSO NAZIONALE AIRB
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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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AIRO



DICHIARAZIONE

Relatore: GIUSEPPINA DE MARCO

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**)
- Titolarità di brevetti in compartecipazione ad aziende con interessi commerciali in campo sanitario (**NIENTE DA DICHIARARE**)
- Partecipazioni azionarie in aziende con interessi commerciali in campo sanitario (**NIENTE DA DICHIARARE**)
- Altro



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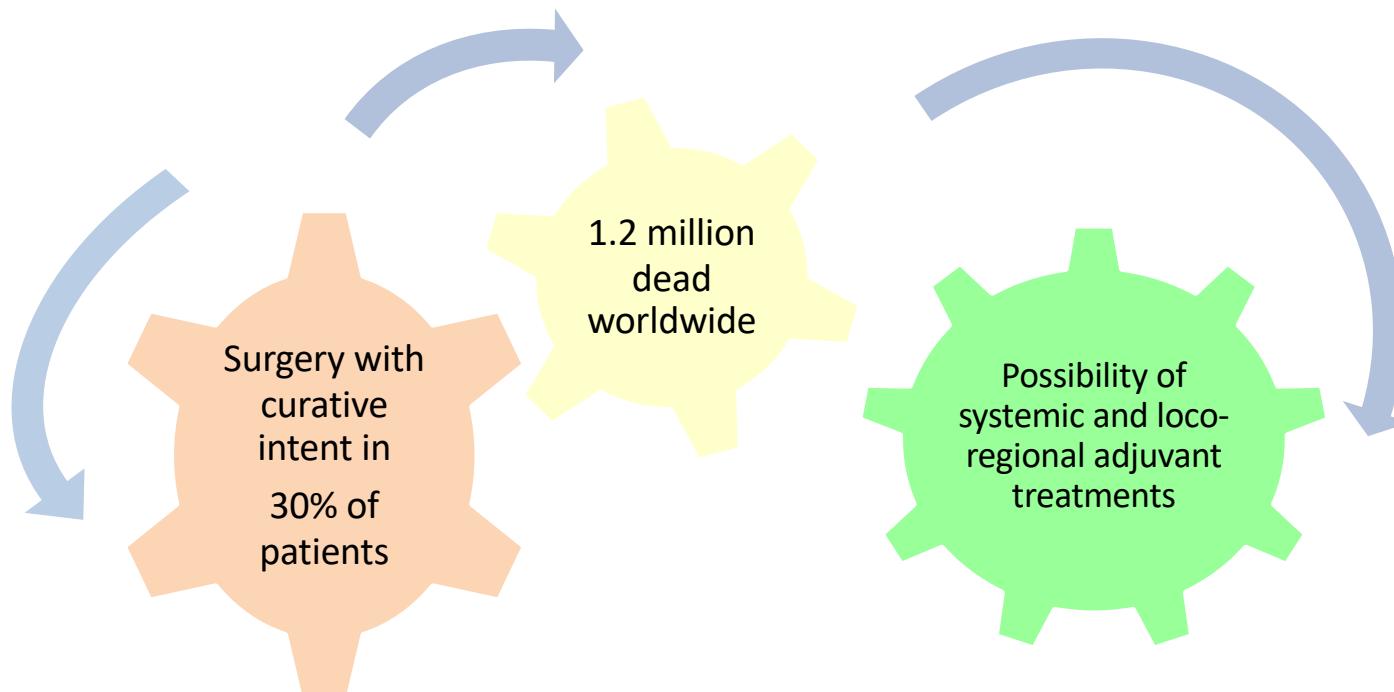
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POSTOPERATIVE RADIOTHERAPY IN PN2 RESECTED NSCLC PATIENTS IN THE MODERN ERA: PRELIMINARY RESULTS OF A MULTICENTRE RETROSPECTIVE ANALYSIS OF ACUTE AND LATE TOXICITY (RAC-TAC STUDY).

G. De Marco, V. Nardone, A. Bruni, D. Franceschini, S. Vagge, M. Sepulcri, A. Cappelli, E. D'Angelo, M. Manetta, M. Scricciolo, A. Angrisani, C. Guida, D. Aiello, I. Fazio, P. Borghetti, S. Cappabianca.



NSCLC epidemiology





RAC-TAC BACKGROUND: PORT, a controversial topic

ARTICLES

Articles

Postoperative radiotherapy in non-small-cell lung cancer: systematic review and meta-analysis of individual patient data from nine randomised controlled trials

PORT Meta-analysis Trialists Group*

VOLUME 33 • NUMBER 8 • MARCH 10 2015

JOURNAL OF CLINICAL ONCOLOGY

Check for updates

ORIGINAL REPORT

Postoperative Radiotherapy in Non-Small-Cell Lung Cancer: Systematic Review of the National Cancer Database

Cliff G. Robinson, Aalok P. Patel, Maria Q. Baggstrom, Ramaswamy Traves D. Crabtree, Daniel K. Hwang, and Varun Puri

ORIGINAL ARTICLE

Re-evaluation of the Role of Postoperative Radiotherapy and the Impact of Radiation Dose for Non-Small-Cell Lung Cancer Using the National Cancer Database

Christopher D. Corso, MD, PhD, *† Charles E. Rutter, MD, *† Lynn D. Wilson, MD, *‡ Anthony W. Kim, MD, †‡ Roy H. Decker, MD, PhD, *† and Zain A. Husain, MD *‡



Research

JAMA Oncology | Original Investigation

Effect of Postoperative Radiotherapy for Patients With pIIIA-N2 Non-Small Cell Lung Cancer After Complete Resection and Adjuvant Chemotherapy The Phase 3 PORT-C Randomized Clinical Trial

Zhouguang Hui, MD; Yu Men, MD; Chen Hu, PhD; Jingjing Kang, MD; Xin Sun, MD; Nan Bi, MD, PhD;
Zongmei Zhou, MD; Jun Liang, MD; Jima Lv, MD; Qinfu Feng, MD; Zefen Xiao, MD; Dongfu Chen, MD;
Yan Wang, MD; Junling Li, MD; Jie Wang, MD; Shugeng Gao, MD; Luhua Wang, MD; Jie He, MD



Postoperative radiotherapy versus no postoperative radiotherapy in patients with completely resected non-small-cell lung cancer and proven mediastinal N2 involvement (Lung ART): an open-label, randomised, phase 3 trial

Cecile Le Pechoux, Nicolas Pourel, Fabrice Barlesi, Delphine Lerouge, Delphine Antoni, Bruno Lamezez, Ursula Nestle, Pierre Boisselier, Eric Dansin, Amaury Paumier, Karine Peignaux, François Thillays, Gerard Zalcman, Jeannick Madelaine, Eric Pichon, Anne Larrouy, Armelle Lavole, Delphine Argo-Leignel, Marc Derollez, Corinne Faivre-Finn, Matthew Q Hatton, Oliver Riesterer, Emilie Bouvier-Morel, Ariane Dunant, John G Edwards, Pascal Alexandre Thomas, Olaf Mercier, Aurelie Bardet



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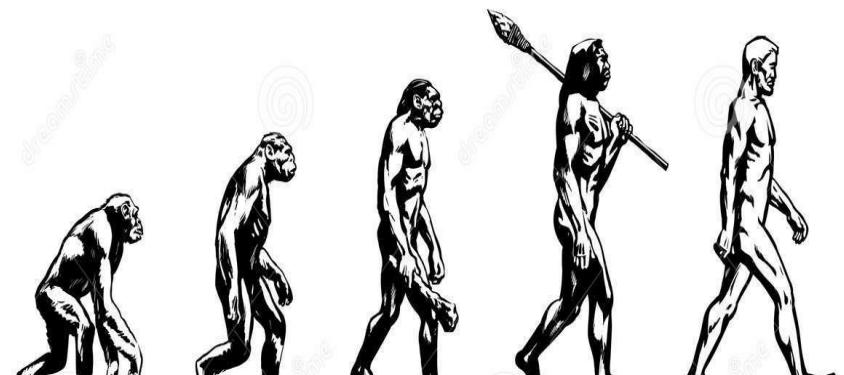
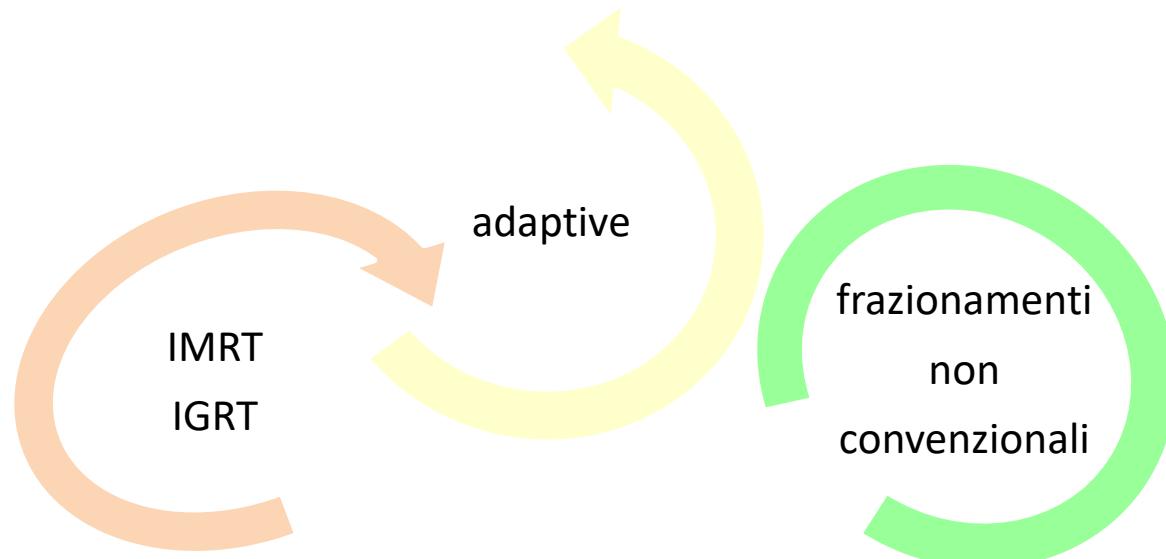
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Advances in Radiotherapy



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RAC-TAC



Retrospective trial

Primary end-point:
Acute and late toxicity

Secondary end-points: disease free survival,
locoregional control, overall survival, cardiac,
pulmonary and esophageal dosimetry



Eligibility criteria:

1. Patients with histologically confirmed pN2 NSCLC who underwent surgical resection;
2. PORT with IMRT o VMAT.



Non-inclusion criteria

1. Metastasis in a different lobe, pleural or pericardial involvement;
2. Patients with a history of previous chest radiotherapy;
3. Clinical progression disease during postoperative chemotherapy;
4. Recent (<6 months) severe cardiac or pulmonary disease;

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Radiotherapy Department University Hospital of Herakleion Crete Greece	Creta, Grecia	Dr.ssa Maria Tolia, Dipartimento di Radioterapia	mariatolia@uoc.gr
Ospedale San Donato - Arezzo - Azienda USL Toscana sud est	Arezzo	Dr.ssa Simona Borghesi, UOC Radioterapia	s.borghesi@gmail.com
UOC Radioterapia, Modena	Modena	Patrizia Ciommella	

RAC-TAC: Stato dello studio

✓ 18 Centri coinvolti;

AOU Università della Campania Vanvitelli - Prot. 0026796/i del 21/09/2021 15.12 Registrato da: Comitato Etico
21/09/2021 15.12-20210026796*



Comitato Etico Università degli Studi della Campania "Luigi Vanvitelli" - Azienda Ospedaliera Universitaria "Luigi Vanvitelli" - AORN "Ospedali dei Colli"

Al Responsabile dello Studio
Dr. Valerio Nardone
valerio.nardone@unicampania.it

Al Direttore Sanitario A.O.U. "Luigi Vanvitelli"
Dott.ssa Maria Vittoria Montemurro

Oggetto: presa d'atto studio no profit osservazionale retrospettivo "STUDIO RAC-TAC" dal titolo: "Radioterapia adiuvante in pazienti affetti da neoplasia del polmone non a piccole cellule localmente avanzata sottoposti a chirurgia: studio retrospettivo multicentrico della valutazione della tossicità acuta e tardiva", Responsabile: dott. Valerio Nardone afferente al DAI di Diagnostica per Immagini, Area Critica e Terapeutica.

21/09/2021: presa d'atto CE
centro promotore;



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Results

212 patients from 6 different centers:

142 males and 70 females, median age 68 years.

147 patients showed acute toxicity (69,3%).

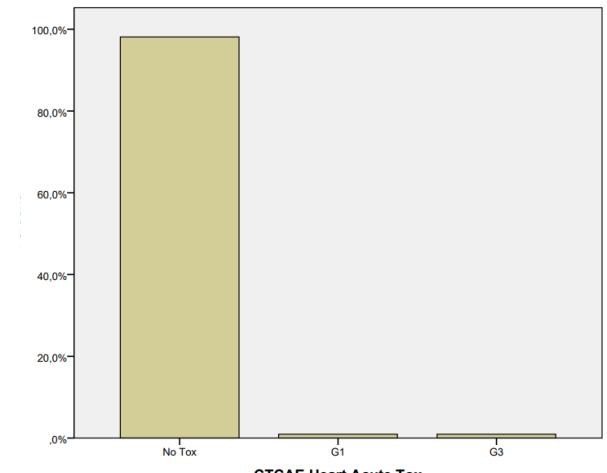
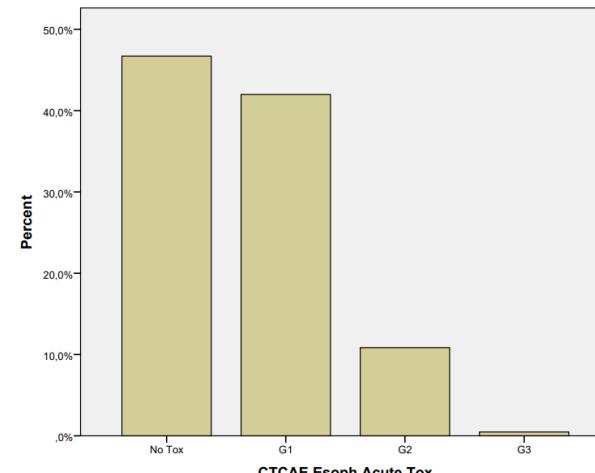
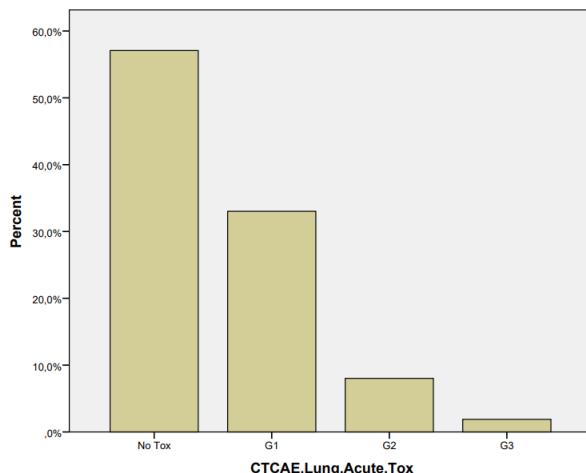
60 patients showed at least one late side effect (28,3%).





Acute toxicity

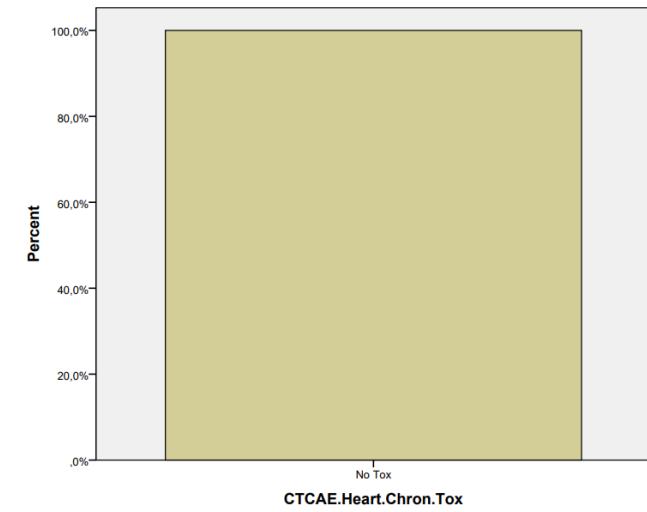
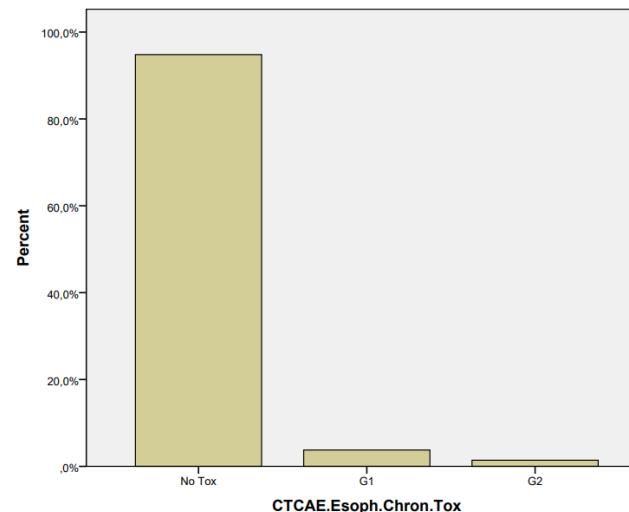
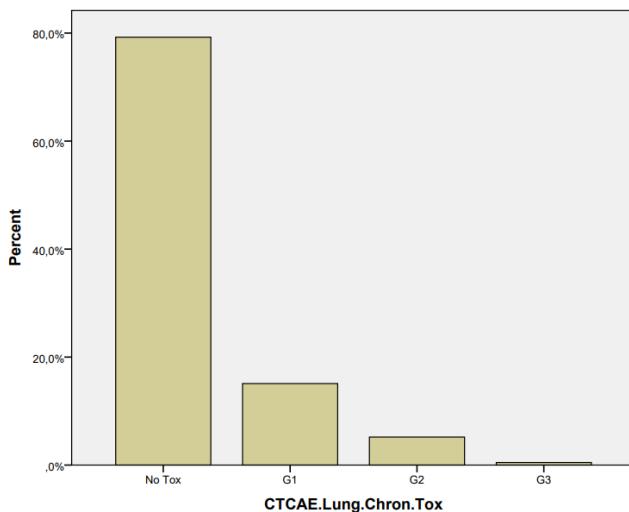
1. 91 patients had lung acute side effects (G1-G2 in 87 patients, G3 in 4 patients);
2. 113 esophageal (G1-G2 in 112 patients, G3 in 1 patients);
3. Only 4 cardiac (G1 in 2 and G3 in 2 patients).





Late toxicity

1. 44 patients had lung late side effects (43 patients G1-G2 and 1 G3);
2. 11 patients had esophageal late side effects(all G1-G2);
3. no late heart toxicity was reported.



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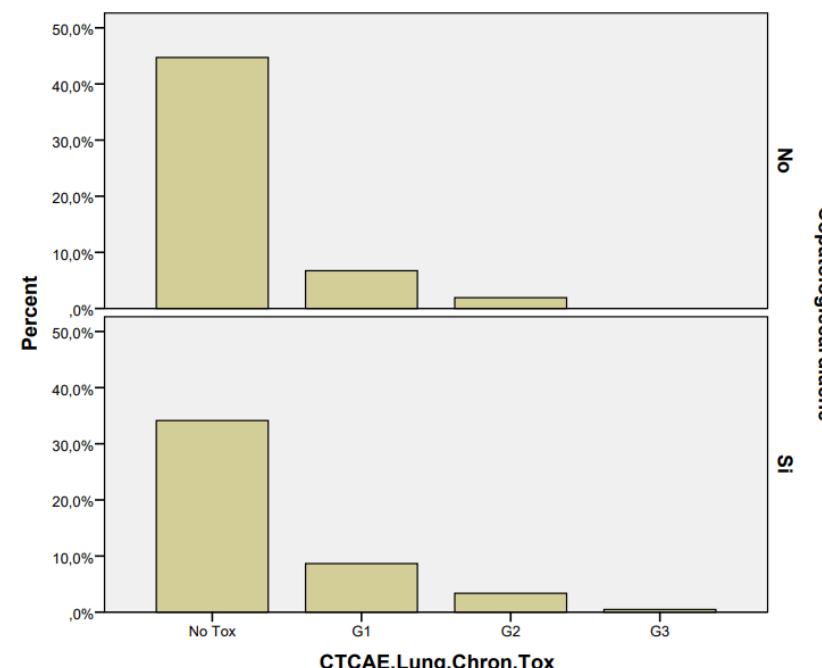
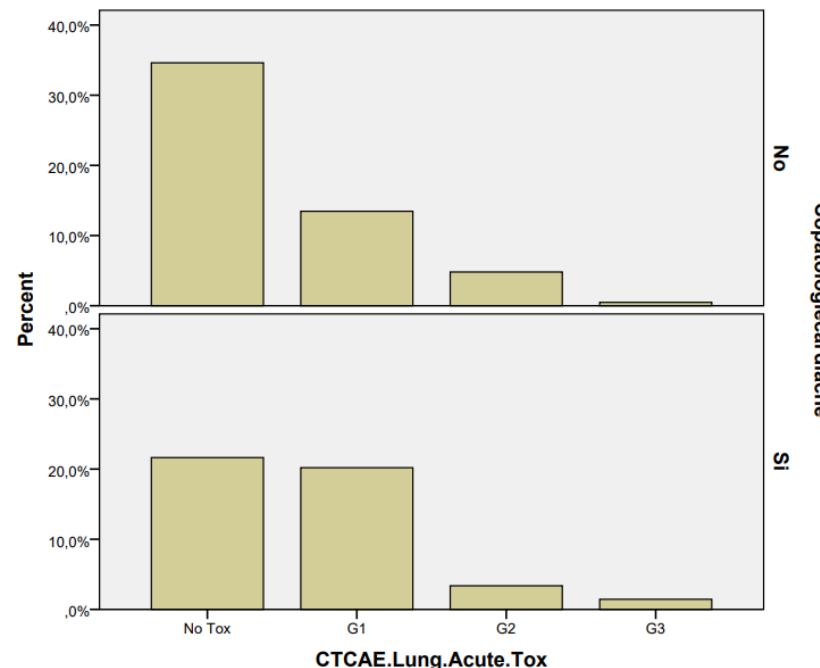


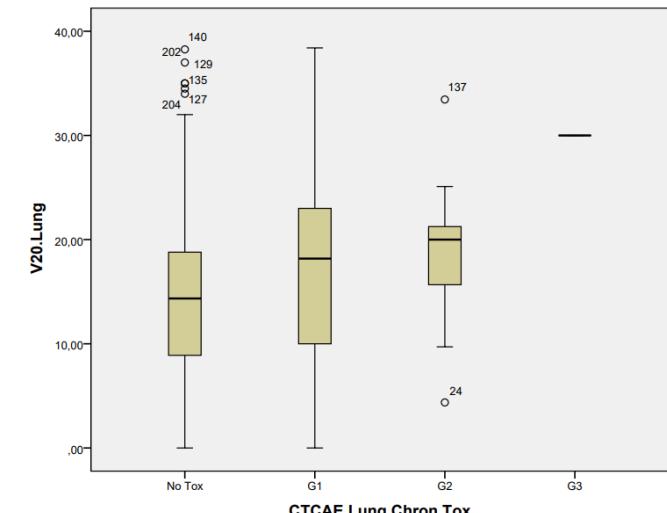
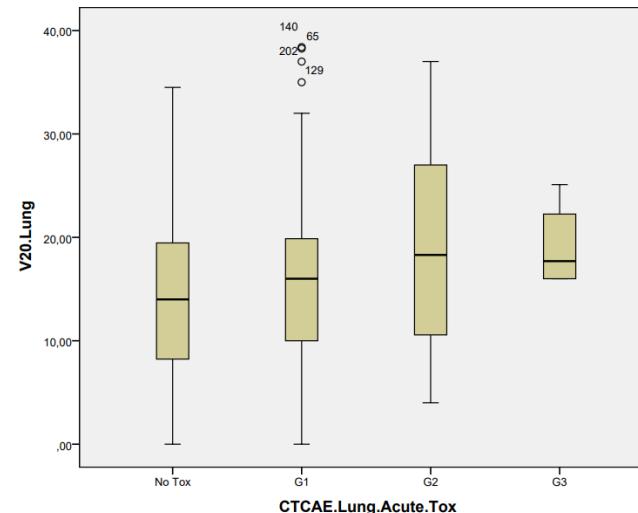
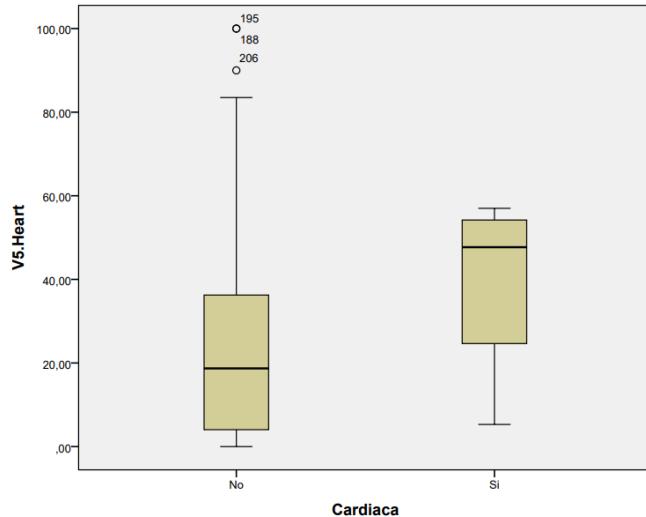
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An history of heart disease was found to be significantly correlated with both pulmonary acute (p:0,016) and late toxicity (p:0,008).

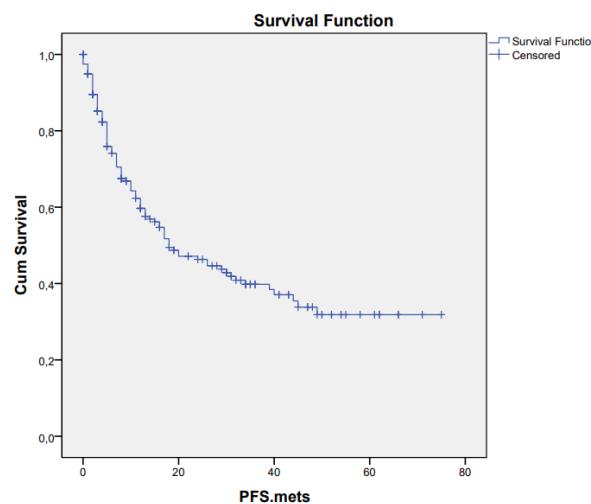
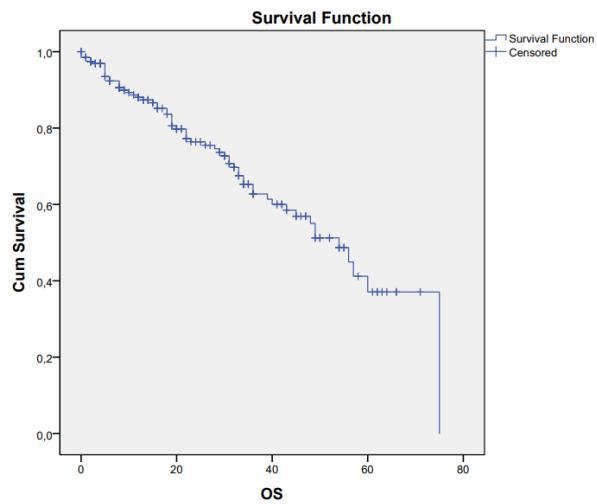




A correlation with dosimetric parameters was found between:

1. V20-Lung with acute and late lung toxicity ($p:0,007$);
2. V5-Heart with acute cardiac one ($p:0,043$).

Median
follow up: 54
months



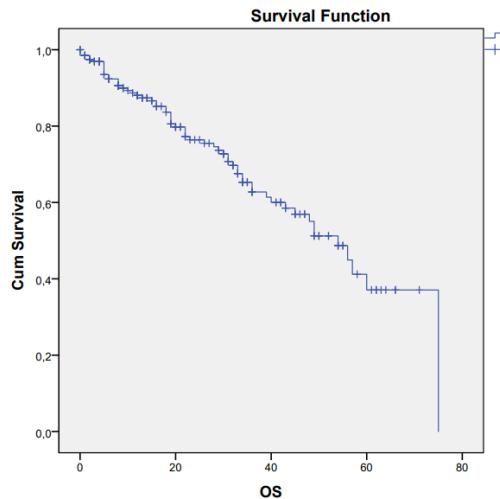
64 patients (30,2%)
showed no evidence
of disease.

55 patients (25,9%)
were dead for
disease.

48 patients (22,6%) showed a locoregional relapse.

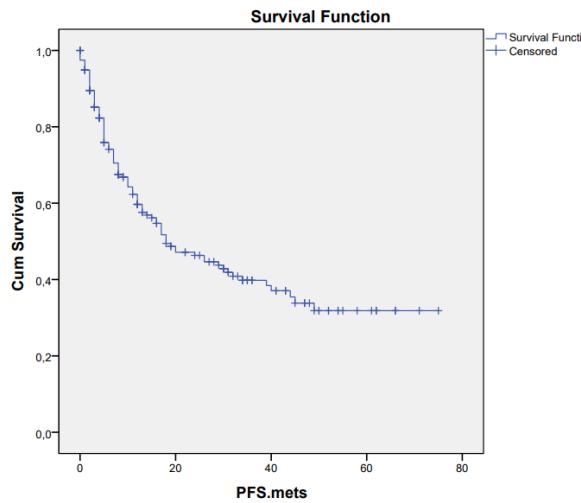
106 patients (50%) developed distant metastases.

The number of positive nodes ($p:0,015$) was the only parameter correlated with distant metastases, while the total number of removed nodes ($p:0,034$) was related with locoregional relapse.



OS

- 12 months: 84%
- 2 years: 75%
- 3 years: 61%



Distance PFS:

- 1 year: 60%
- 2 years: 47%
- 3 years: 40%

Local PFS:

- 1 year: 82%
- 2 years: 76%
- 3 years: 68%



Conclusions

RAC-TAC retrospective study confirmed the low incidence of severe toxicities after PORT when delivered with more advanced technologies. At the same time, most of the patients develop distant metastases. The total number of removed nodes and the number of positive ones e significantly correlated with the pattern of recurrence.



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Grazie per l'attenzione!

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