



SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

A Review of Hypofractionated Palliative Radiotherapy

Stephen T. Lutz, MD¹
Edward L. Chow, MBBS²
William F. Hartsell, MD³
Andre A. Konski, MD⁴

¹ Department of Radiation Oncology, Blanchard Valley Regional Cancer Center, Findlay, Ohio.

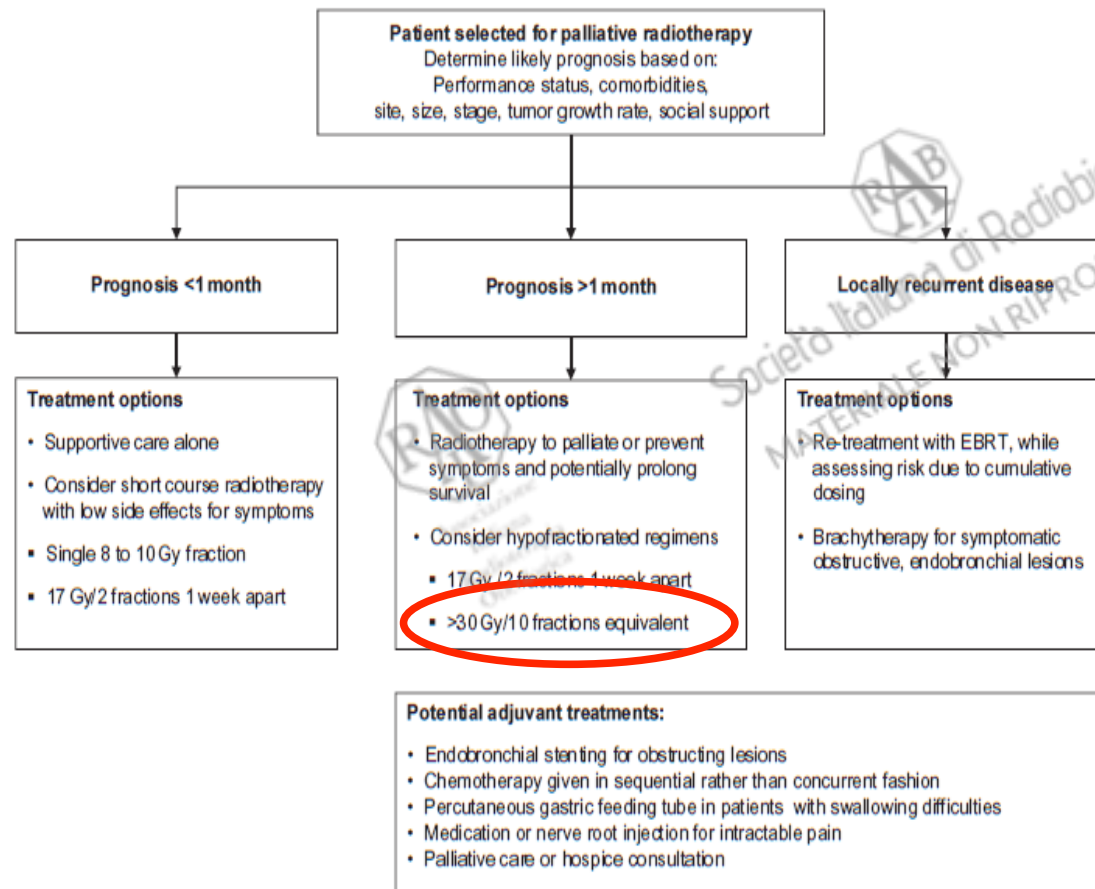
² Department of Radiation Oncology, Toronto Sunnybrook Regional Cancer Center, Toronto, Ontario, Canada.

³ Department of Radiation Oncology, Advocate Good Samaritan Hospital, Downers Grove, Illinois.

⁴ Department of Radiation Oncology, Fox Chase Cancer Center, Philadelphia, Pennsylvania.

Radiotherapy commonly is employed to address symptoms in patients with symptoms caused by cancer. For this article, the authors reviewed data supporting the use of hypofractionated palliative radiotherapy. In addition to single-fraction treatment for painful bony metastasis, the available literature suggested that courses of 2 to 14 external-beam fractions may provide equivalent relief to longer course treatment in patients with a poor prognosis who have primary cancers of the lung, rectum, bladder, prostate, head and neck, spleen, and gynecologic system. Hypofractionated treatment delivers palliation that is time efficient, cost effective, and minimally toxic. Evidence suggests that the reluctance of radiation oncologists to provide single-fraction treatment acts as a barrier to referrals from palliative care professionals. Collaboration in education, research, and patient advocacy will advance the common objectives of the 2 specialties and lead to an appropriate increase in the use of palliative hypofractionated radiotherapy. *Cancer* 2007;109:1462–70. © 2007 American Cancer Society.

Dose fractionation classification	Examples
Short Fractionation	10Gy in 1 fraction 16–17 Gy in 2 fractions (weekly) 20Gy in 5 fractions
Standard Dose Fractionation	30 Gy in 10 fractions
High-Dose Fractionation	39–45 Gy in 12–15 fractions 50–60 Gy in 25–30 fractions



Rodrigues G, Videtic GMM, Sur R, *et al.* Palliative thoracic radiotherapy in lung cancer: an American Society for Radiation Oncology evidence-based clinical practice guideline. *Pract Radiat Oncol* 2011; 1: 60–71.

Rodrigues G, Macbeth F, Burmeister B, *et al.* Consensus statement on palliative lung radiotherapy: Third International Consensus Workshop on Palliative Radiotherapy and Symptom Control. *Clin Lung Cancer* 2011; doi: 10.1016/j.clcc.2011.04.004

SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

VOLUME 32 • NUMBER 26 • SEPTEMBER 10 2014

JOURNAL OF CLINICAL ONCOLOGY

REVIEW ARTICLE



Associazione
Italiana
Radioterapia
Oncologica

Role of Radiation Therapy in Palliative Care of the Patient With Cancer

Stephen T. Lutz, Joshua Jones, and Edward Chow

SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

Primary Site	Treatment Options	
	Poor Prognosis/Performance Status	Average Prognosis/Performance Status
CNS	<ul style="list-style-type: none"> • 30 Gy in 10 fractions • Temozolomide alone • Supportive care alone 	<ul style="list-style-type: none"> • 59.4-60 Gy in 30 to 33 fractions
Head and neck	<ul style="list-style-type: none"> • 14 Gy in four fractions monthly to a total of 42 Gy • 8 Gy in one fraction • Supportive care alone 	<ul style="list-style-type: none"> • 70 Gy in 35 fractions • 50 Gy in 20 fractions
Breast	<ul style="list-style-type: none"> • 20-30 Gy in four to five fractions • 8-10 Gy in one fraction • Supportive care alone 	<ul style="list-style-type: none"> • 30 Gy in 10 fractions • 50 Gy in 25 fractions
Lung	<ul style="list-style-type: none"> • 17 Gy in two fractions in 2 weeks • 8-10 Gy in one fraction • Supportive care alone 	<ul style="list-style-type: none"> • > 30 Gy in 10 fraction-equivalents • Endobronchial brachytherapy for endoluminal obstruction
Esophagus	<ul style="list-style-type: none"> • 30 Gy in 10 fractions • 24 Gy in three fractions • 8-10 Gy in one fraction • Supportive care alone 	<ul style="list-style-type: none"> • 50 Gy in 25 fractions • 50 Gy in 20 fractions
Genitourinary	<ul style="list-style-type: none"> • 14.4 Gy in four fractions monthly to a total of 43.2 Gy • 8-10 Gy in one fraction • Supportive care alone 	<ul style="list-style-type: none"> • 30 Gy in 10 fractions • 50 Gy in 20 fractions
Gynecologic	<ul style="list-style-type: none"> • 14.4 Gy in four fractions monthly to a total of 43.2 Gy • 8-10 Gy in one fraction • Supportive care alone 	<ul style="list-style-type: none"> • 30 Gy in 10 fractions • 50 Gy in 20 fractions

SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

AIMS

To assess the effectiveness of a Short-course Accelerated Radiation therapy (SHARON) in the palliative treatment of patients with primary or secondary thoracic neoplasms, symptomatic, and not susceptible of surgery or radical radiotherapy

METHODS

A phase II clinical trial was planned based on optimal two-stage Simon's design.

Eligibility criteria included patients with an Eastern Cooperative Oncology Group (ECOG) performance status of ≤ 3 and an expected survival > 3 months.

Twenty-five patients were treated with radiotherapy
(total dose: **20 Gy, 5 Gy per fraction**)
in 2 days with twice daily fractionation.

SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

Two G1 skin (8%), 7 G1 haematological (28%) and 4 G1 pulmonary (16%) toxicities were recorded. **No patient experienced G \geq 2 acute toxicities.**

With a median follow-up time of 6 months (range, 1 to 16 months), of the 25 symptomatic patients, 24 showed an improvement or resolution of baseline symptoms (**overall palliative response rate: 96%**).

Three months overall survival was 87.5% (median survival time: 6 months; 95% CI 5.3-6.6 mo).

Median survival without symptoms progression was 3 months (95% CI: 2.2-3.7mo).

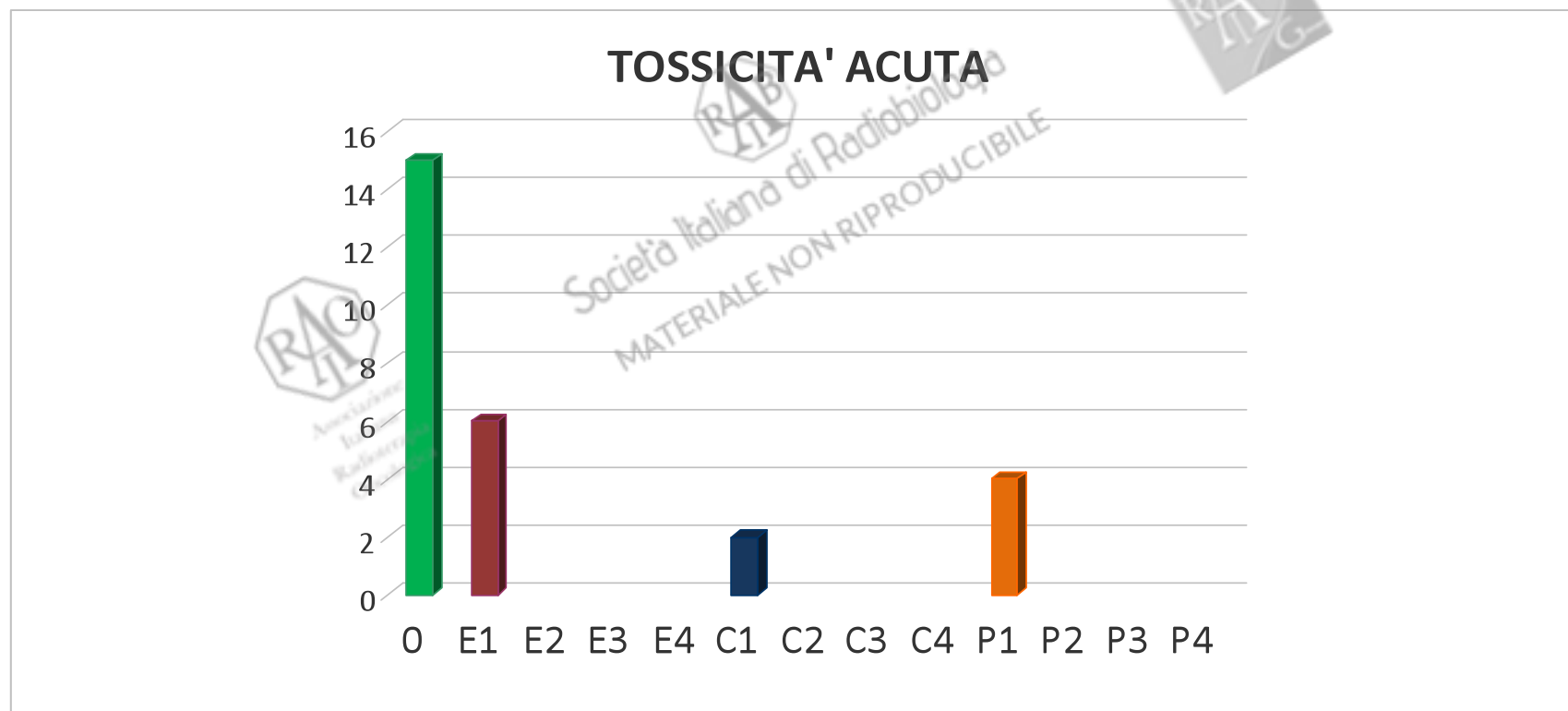
In 24 patients with pain, a significant reduction of this symptom was recorded in terms of **VAS (5.0 vs 2.9, p=0.02).**

SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

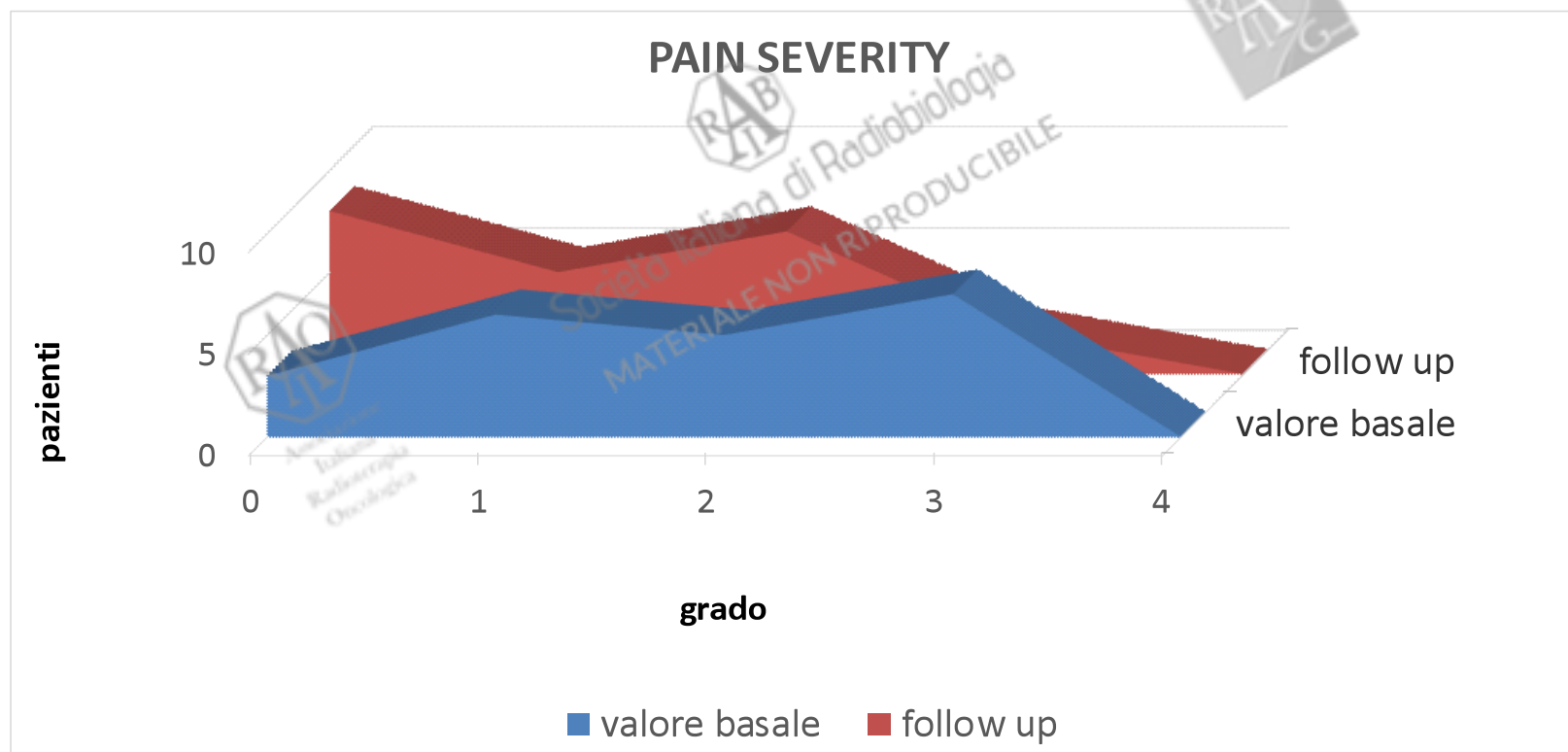


SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

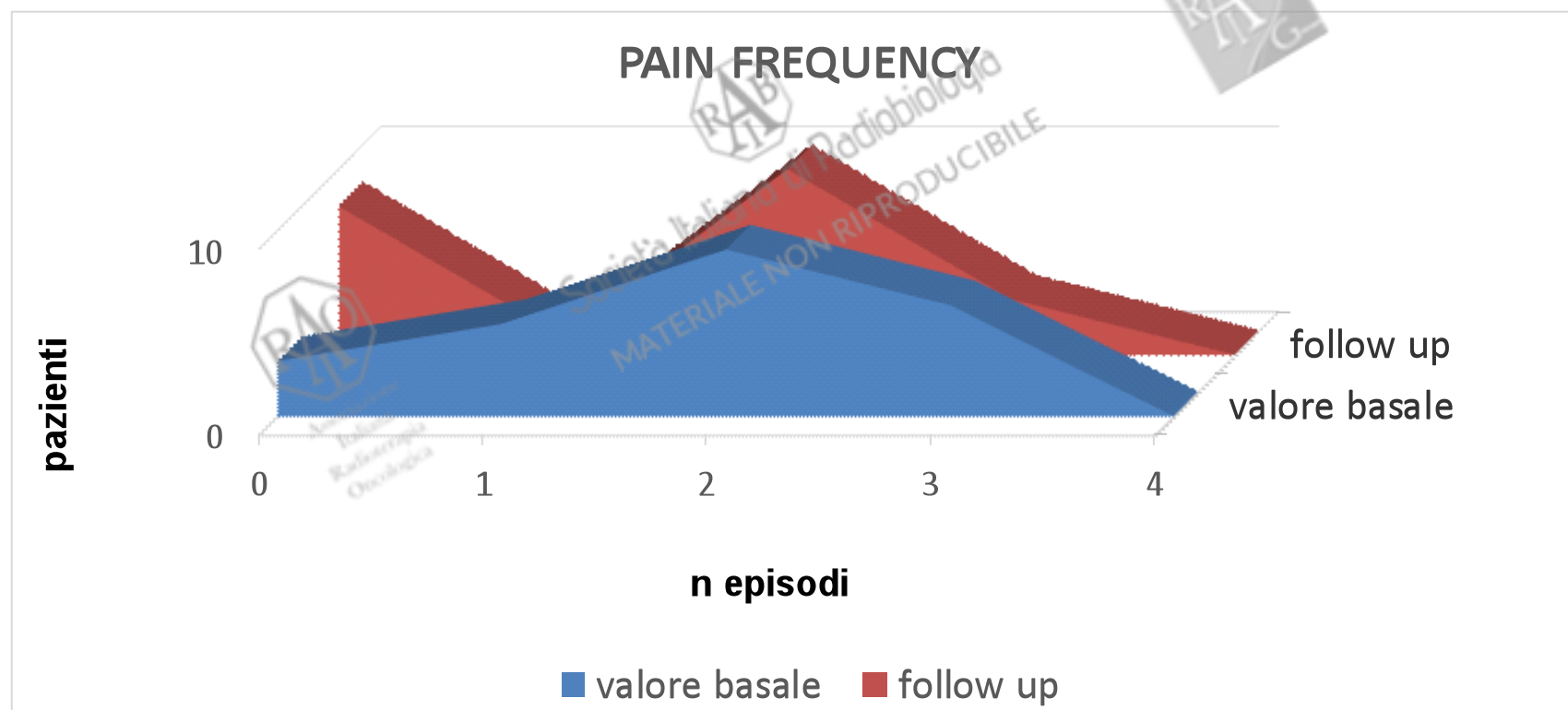


SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

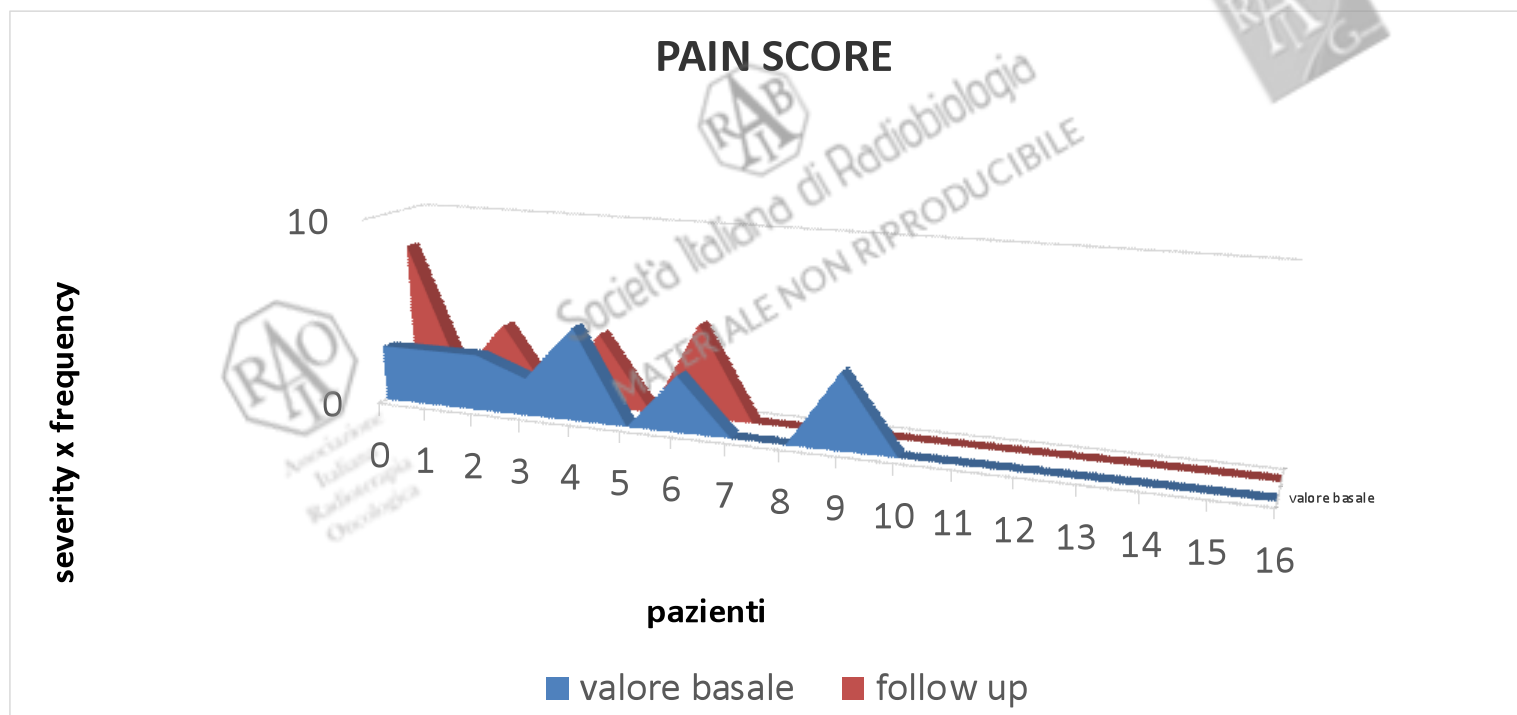


SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS



SHORT-COURSE PALLIATIVE RADIATION THERAPY FOR ADVANCED THORACIC TUMORS: FINAL RESULTS OF A PHASE II STUDY

INTRODUCTION

RESULTS

CONCLUSIONS

CONCLUSIONS

Short-course accelerated thorax radiotherapy (20 Gy in twice daily fractions, 2 consecutive days) is tolerated and effective in terms of symptom relief.

A phase III comparison against a standard palliative regimen (30 Gy in 10 fractions) has been planned in this patient population.

**SHORT-COURSE PALLIATIVE RADIATION THERAPY
FOR ADVANCED THORACIC TUMORS:
FINAL RESULTS OF A PHASE II STUDY**

grazie