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IL RUOLO DELLA RADIOTERAPIA NELL'ITER TERAPEUTICO DELLA NEOPLASIA DEL CANALE ANALE

THE LANCET

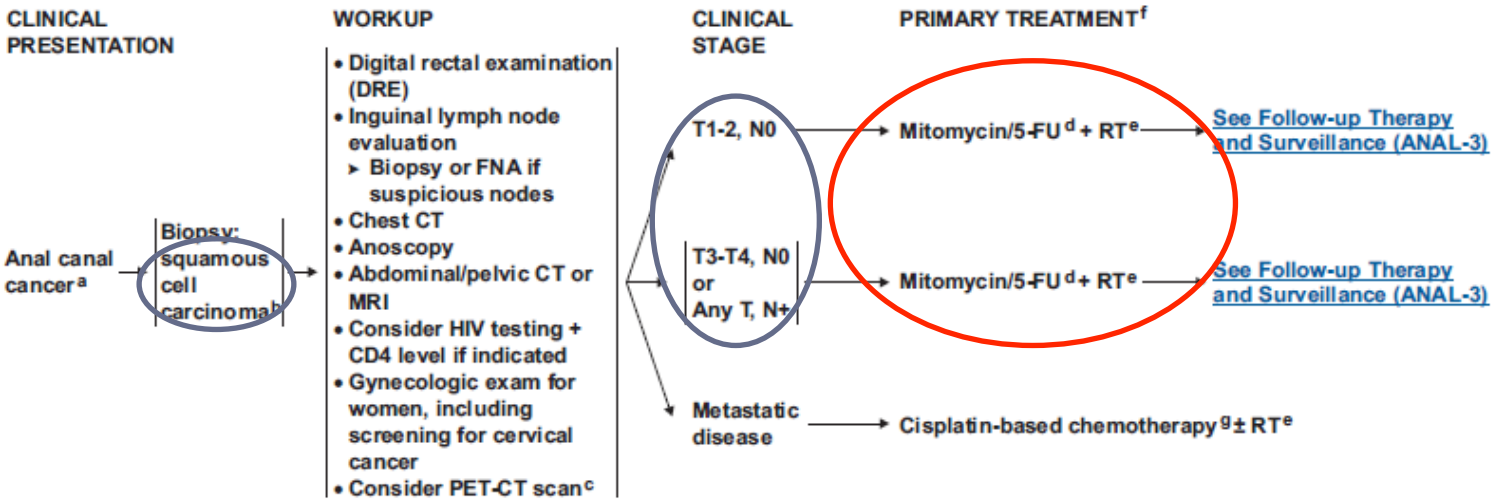
Concomitant Radiotherapy and Chemotherapy Is Superior to Radiotherapy Alone in the Treatment of Locally Advanced Anal Cancer: Results of a Phase III Randomized Trial of the European Organization for Research and Treatment of Cancer Radiotherapy and Gastrointestinal Cooperative Groups

By H. Bartelink, F. Roelofsen, F. Eschwege, P. Rougier, J.F. Bosset, D. Gonzalez Gonzalez, D. Peiffert, M. van Glabbeke, and M. Pierart

Journal of Clinical Oncology, Vol 15, No 5 (May), 1997: pp 2040-2049

NCCN Guidelines Version 2.2013
Anal Carcinoma

NCCN Guidelines Index
Anal Carcinoma Table of Contents
Discussion



[a]The superior border of the functional anal canal, separating it from the rectum, has been defined as the palpable upper border of the anal sphincter and puborectalis muscles of the anorectal ring. It is approximately 3 to 5 cm in length, and its inferior border starts at the anal verge, the lowermost edge of the sphincter muscles, corresponding to the introitus of the anal orifice.

[b]For melanoma histology, see the NCCN Guidelines for Melanoma; for adenocarcinoma, see the NCCN Guidelines for Rectal Cancer.

[c]PET-CT scan does not replace a diagnostic CT. The routine use of a PET-CT scan for staging or treatment planning has not been validated.

[d]See Principles of Chemotherapy (ANAL-A).
Ajani JA, Winter KA, Gunderson LL, et al. Fluorouracil, mitomycin, and radiotherapy vs fluorouracil, cisplatin, and radiotherapy for carcinoma of the anal canal: a randomized controlled trial. JAMA 2008;299:1914. In a randomized trial, the strategy of using neoadjuvant therapy with 5-FU + cisplatin followed by concurrent therapy with 5-FU + cisplatin + RT was not superior to 5-FU + mitomycin + RT.

[e]See Principles of Radiation Therapy (ANAL-B).

[f]Patients with anal cancer as the first manifestation of HIV may be treated with the same regimen as non-HIV patients. Patients with active HIV/AIDS-related complications or a history of complications (eg, malignancies, opportunistic infections) may not tolerate full-dose therapy or may not tolerate mitomycin and require dosage adjustment or treatment without mitomycin.

[g]Cisplatin/5-FU is recommended for metastatic disease. If this regimen fails, no other regimens have been shown to be effective. See Principles of Chemotherapy (ANAL-A). Local control can be achieved with the use of RT.

Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

Radioterapia

Report

Australasian Gastrointestinal Trials Group (AGITG) Contouring Atlas and Planning Guidelines for Intensity-Modulated Radiotherapy in Anal Cancer

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Sarat Chander, M.B.B.S., F.R.A.N.Z.C.R.,† Julie Chu, M.B.B.S., F.R.A.N.Z.C.R.,†
Andrew Kneebone, M.B.B.S., F.R.A.N.Z.C.R.,‡,**
Susan Carroll, M.B.B.S., F.R.A.N.Z.C.R.,§,** Kirsty Wiltshire, M.B.B.S., F.R.A.N.Z.C.R.,†
Samuel Ngan, M.B.B.S., F.R.C.S.Ed., F.R.A.N.Z.C.R.,†,‖ and Lisa Kachnic, M.D.¶

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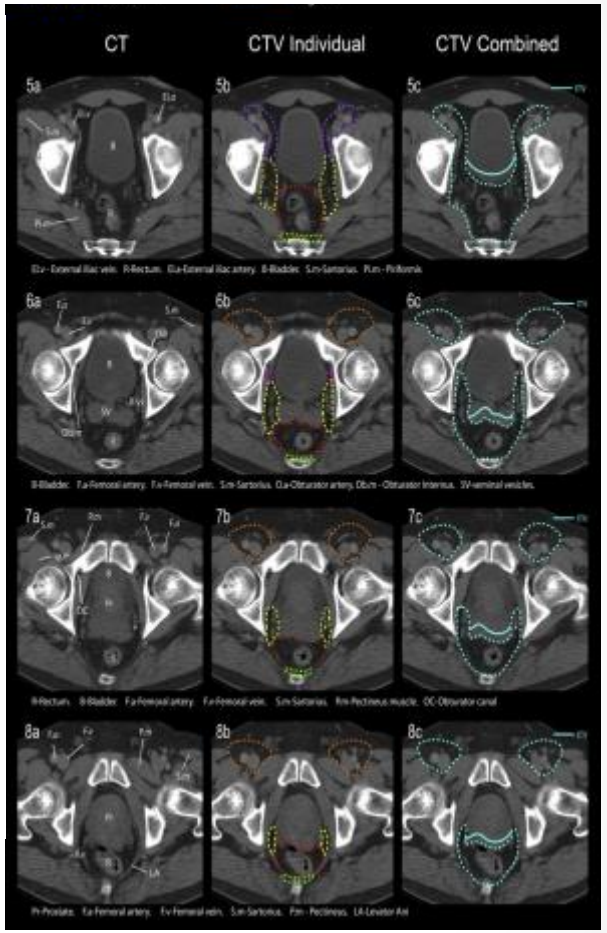
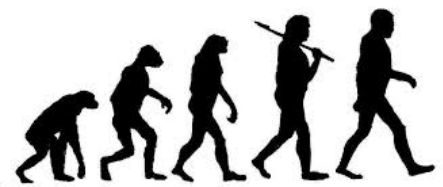
Int. J, Radiation Oncol Biol Phys Vol 83, No 5, pp, 2012





IMRT

Radiotherapy and Oncology 107 (2013) 189–194

Clinical Investigation: Gastrointestinal Cancer

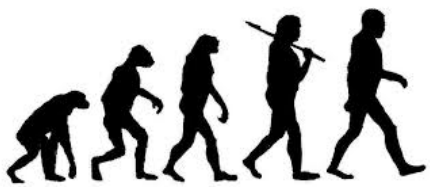
RTOG 0529: A Phase 2 Evaluation of Dose-Painted Intensity Modulated Radiation Therapy in Combination With 5-Fluorouracil and Mitomycin-C for the Reduction of Acute Morbidity in Carcinoma of the Anal Canal

Lisa A. Kachnic, MD,* Kathryn Winter, MS,† Robert J. Myerson, MD,‡ Michael D. Goodyear, MD,§ John Willins, PhD,* Jacqueline Esthappan, PhD,‡ Michael G. Haddock, MD,‖ Marvin Rotman, MD,¶ Parag J. Parikh, MD,‡ Howard Safran, MD,# and Christopher G. Willett, MD**

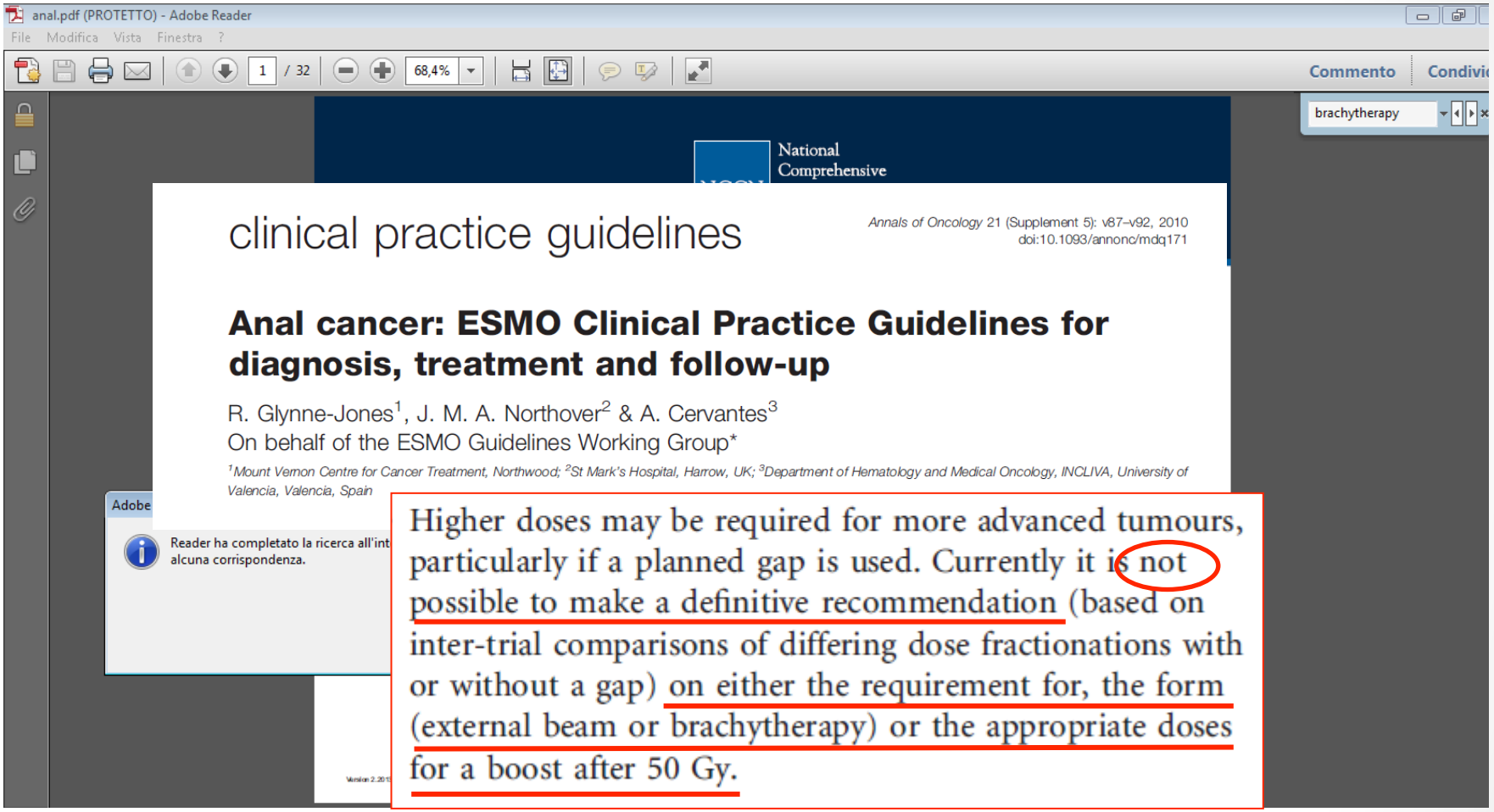
Summary

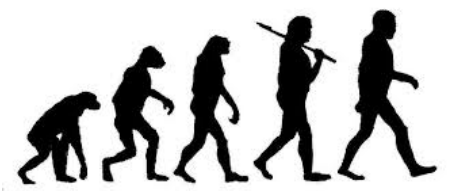
RTOG 0529 assessed the utility of dose-painted intensity modulated radiation therapy (DP-IMRT) in reducing the acute morbidity of 5-fluorouracil/mitomycin-C chemoradiation for T2-4N0-3M0 anal cancer. With 52 evaluable patients, the primary endpoint of reducing grade ≥2 combined gastrointestinal and genitourinary acute adverse events by 15% compared with the RTOG 9811 5-fluorouracil/mitomycin-C arm using standard radiation techniques was not met. However, DP-IMRT yielded significant sparing of acute grade 2+ hematologic, grade 3+ dermatologic, and gastrointestinal toxicity.

Int J Radiation Oncol Biol Phys, Vol 86 pp 27-33, 2013



Brachiterapia come boost





Boost

VOLUME 30 · NUMBER 16 · JUNE 1 2012

JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

Induction Chemotherapy and Dose Intensification of the Radiation Boost in Locally Advanced Anal Canal Carcinoma: Final Analysis of the Randomized UNICANCER ACCORD 03 Trial

Didier Peiffert, Laetitia Tournier-Rangeard, Jean-Pierre Gérard, Claire Lemanski, Eric François, Marc Giovannini, Frédérique Cvitkovic, Xavier Mirabel, Olivier Bouché, Elisabeth Lapeyre, Thierry Conroy, Christine Mousseau-Grillon, Françoise Morvan, Antoine Lusinchi, Jean-Michel Hannoun-Lévi, Jean-François Seitz, Antoine Adenis, Christophe Hennequin, Bernard Dubois, and Michel Ducreux

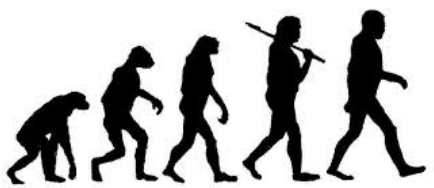
ABSTRACT

Purpose

Concomitant radiochemotherapy (RCT) is the standard for locally advanced anal canal carcinoma (LAACC). Questions regarding the role of induction chemotherapy (ICT) and a higher radiation dose in LAACC are pending. Our trial was designed to determine whether dose escalation of the radiation boost or two cycles of ICT before concomitant RCT lead to an improvement in colostomy-free survival (CFS).

Patients and Methods

Patients with tumors ≥ 40 mm, or < 40 mm and N1-3M0 were randomly assigned to one of four treatment arms: (A) two ICT cycles (fluorouracil 800 mg/m²/d intravenous [IV] infusion, days 1 through 4 and 29 to 32; [illegible])



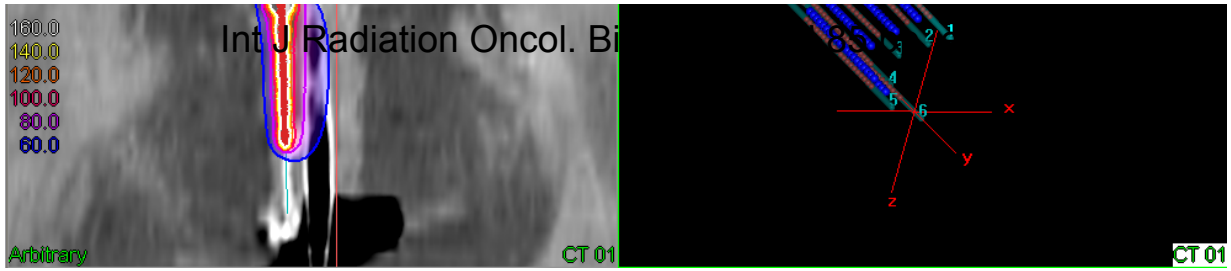
Brachiterapia

Clinical Investigation: Gastrointestinal Cancer

Role of Brachytherapy in the Boost Management of Anal Carcinoma With Node Involvement (CORS-03 Study)

Laurence Moureau-Zabotto, MD,* Cecile Ortholan, MD, PhD,†
Jean-Michel Hannoun-Levi, MD, PhD,‡ Eric Teissier, MD,§ Didier Cowen, MD, PhD,||,¶
Nagi Salem, MD,* Claire Lemanski, MD,# Steve Ellis, MD,** and Michel Resbeut, MD*,**

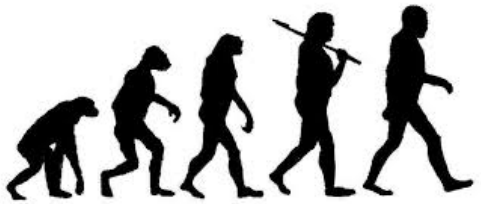
*Department of Radiation Therapy, Institut Paoli Calmettes, Marseille, France; †Department of Radiation Therapy, Monaco, France; ‡Department of Radiation Therapy, Antoine Lacassagne Cancer Center, Nice, France; §Azurean Cancer Center, Mougins, France; ||Department of Radiation Therapy, Timone Academic Hospital and North Academic Hospital, Marseille, France; ¶Department of Radiation Therapy, Val d'Aurelle Cancer Center, Montpellier, France; #Catalan Oncology Center, Perpignan, France; and **French Red Cross Center, Toulon, France



Int J Radiation Oncol. Bi

Summary

The purpose of this study was to assess retrospectively the clinical outcome in anal cancer patients with lymph node involvement, treated with split-course radiation therapy and receiving a boost through external beam radiation therapy or brachytherapy. This study shows that, even in the case of initial perirectal node invasion, brachytherapy boost is superior to external beam radiation therapy boost with regard to the local control rate, without an influence on overall survival, and suggests that N1 status in patients with anal carcinoma should not be a contraindication to use of a brachytherapy boost technique.



Scopo

CONFRONTO TRA TECNICHE:

Boost con brachiterapia

VS

Boost con radioterapia esterna

STUDIO RETROSPETTIVO

- ✓ Sopravvivenza globale
- ✓ Fattori prognostici legati alla sopravvivenza

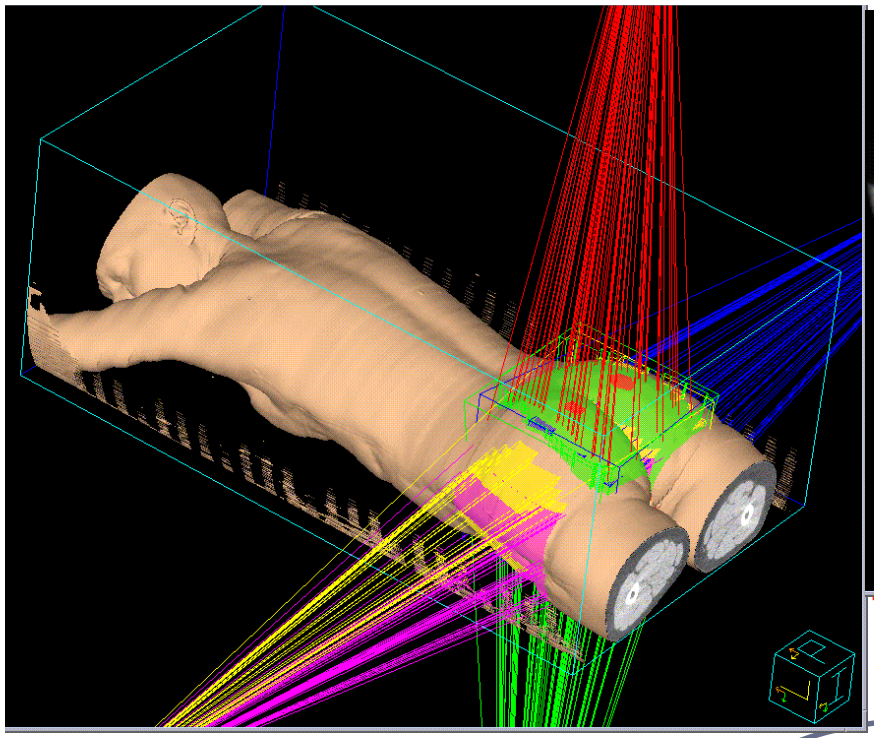
Scenario

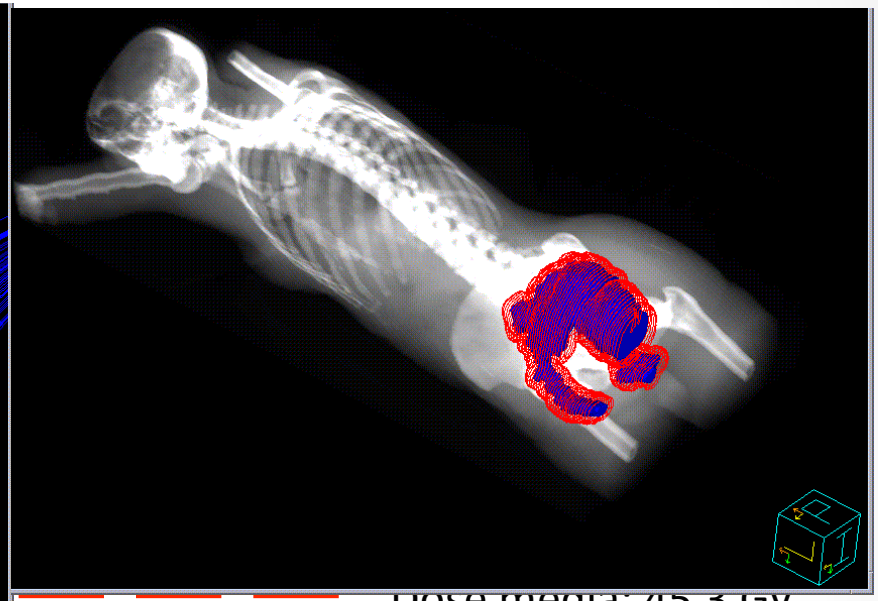
2002-2012: Policlinico
S.Orsola-Malpighi
U.O. Radioterapia

185 pazienti con carcinoma del canale anale

125 pazienti arruolati

Pazienti e metodi





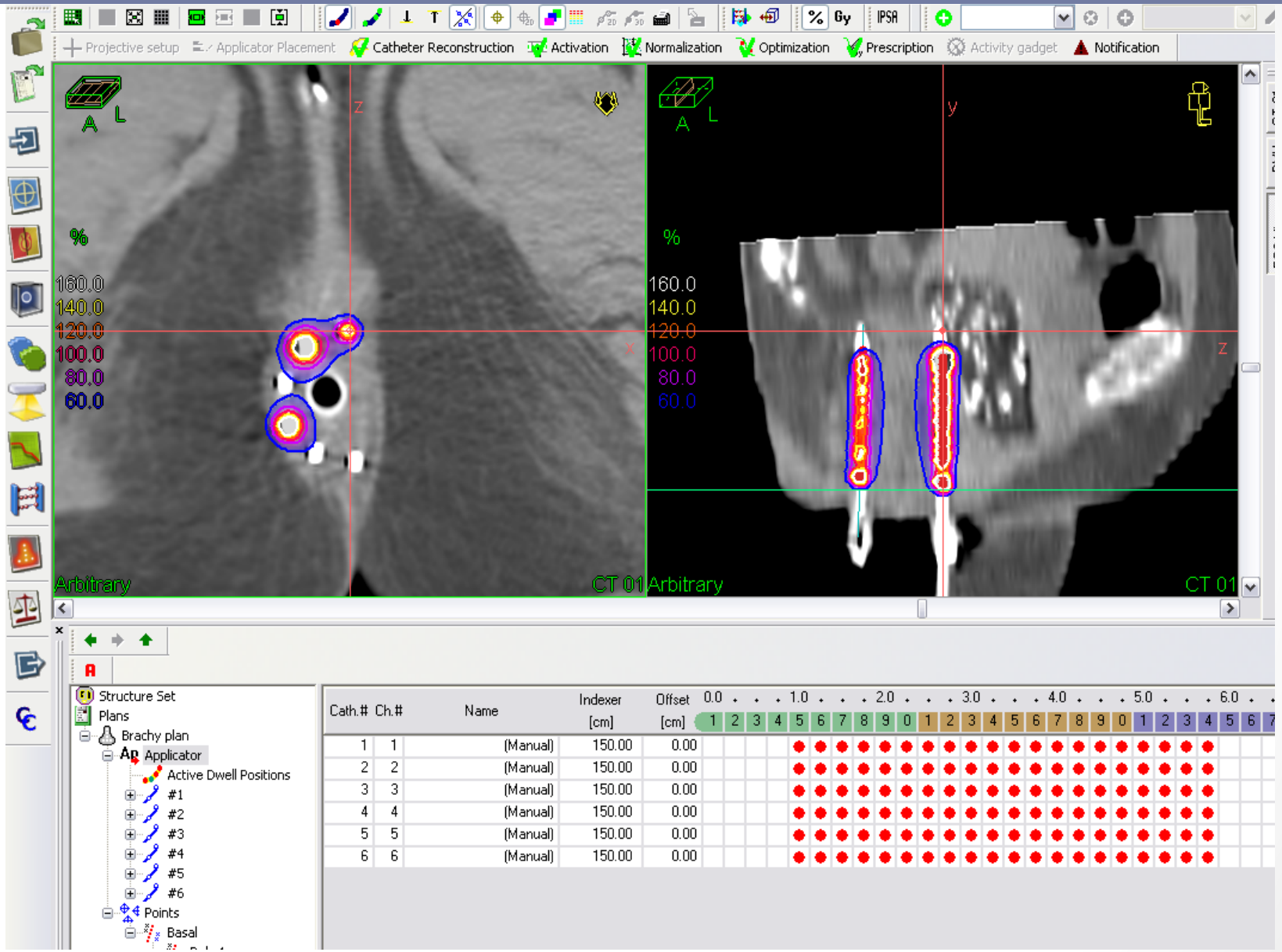
Dose media: 45.3 Gy

BOOST :
BRT-PDR / 3DCRT

Dose media: 18.5 Gy
Circa 0,8 Gy a pulsata

Dose media: 16.4 Gy

Brachiterapia



Pazienti e metodi

Sesso:

Maschi 31 (24.8%)

Femmine 94 (75.2%)

Istologia:

Squamoso: 100 (80%)

v. Basalioide: 14 (11.2%)

v. Cloacogenica: 9 (7.2%)

Indifferenziati: 2 (1.6%)

Età mediana:

61 aa (36-94)

Pazienti > 65 aa:

52 (41.6%)

Pazienti HIV+:

7 (6%)

Pazienti HPV+:

2 (1-6%)

	T1 (n=15, 13.5%)	T2 (n=42 26.2%)	T3 (n=37, 32.5%)	T4 (n=19, 13.4%)
N0 (n=71, 56.3%)	13	34	18	6
N1 (n=29, 23%)	1	7	11	10
N2 (n= 13, 10.3%)	1	1	8	3

(Non erano definibili 14 T e 13 N)

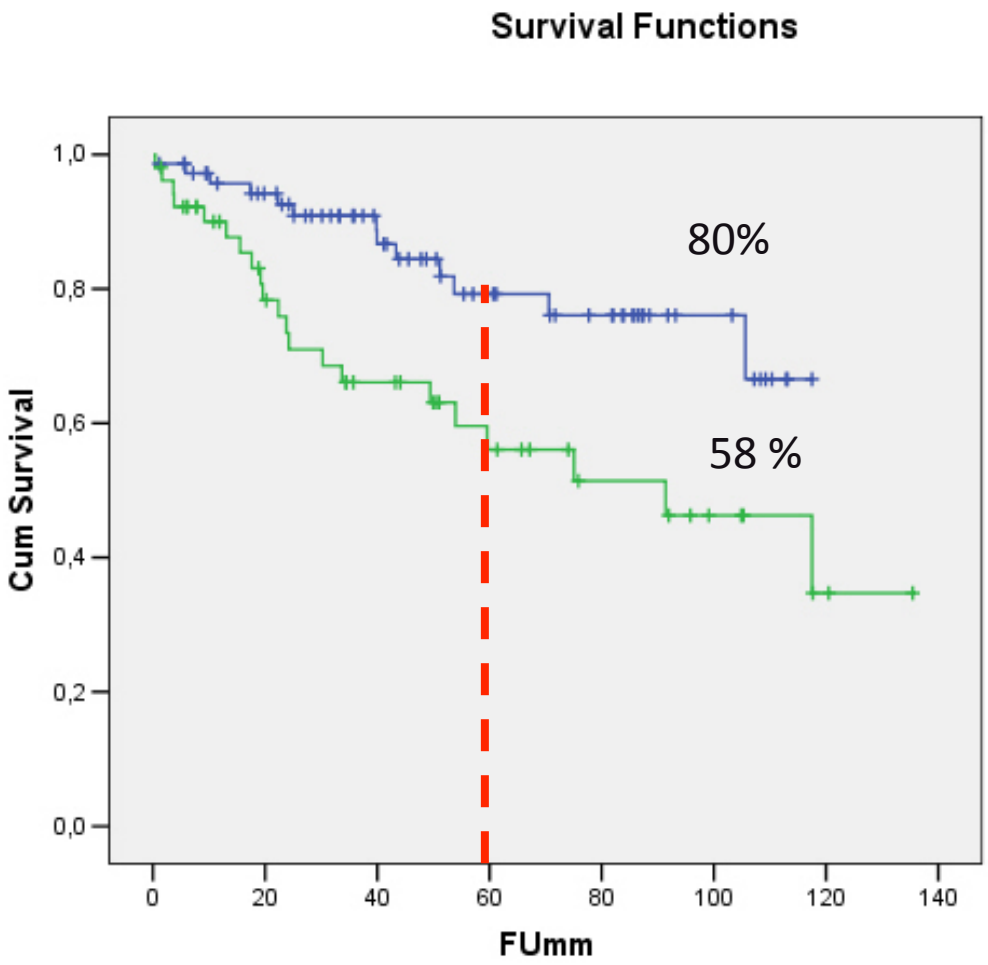
In accordo con AJCC Seventh Edition (2010)

Risultati

	TOTALE n= 125	BOOST BRT n=100, (80%)	BOOST 3D-CRT n=25, (20%)	p < 0.05
Maschi / Femmine	31 (25%) / 94 (75%)	23 (74%) / 77 (82%)	8 (26%) / 17 (18%)	NS
Età (aa)*	61 (37-94)	61 (37-94)	68 (42-90)	NS
Pz > 65 aa°	52 (42%)	37 (71%)	15 (29%)	0.03
T1 T2 T3 T4	112 (89,6%)	15 (17%) 28 (32%) 33 (37%) 12 (14%)	2 (8%) 5 (21%) 8 (33%) 9 (38%)	0.05
Dose media (Gy)		1525 (800-2250)	1650 (1080-2240)	
Follow-up (mesi)*	43 (1-135)	86 (1-135)	37 (0-118)	<0.001
Pz deceduti°	34 (27%)	25 (25%)	9 (36%)	NS
Recidive°	22 (18%)	13 (13%)	9 (36%)	0.007

*Mediana e range
°Valore assoluto e percentuale

Sopravvivenza per i pz > 65 aa

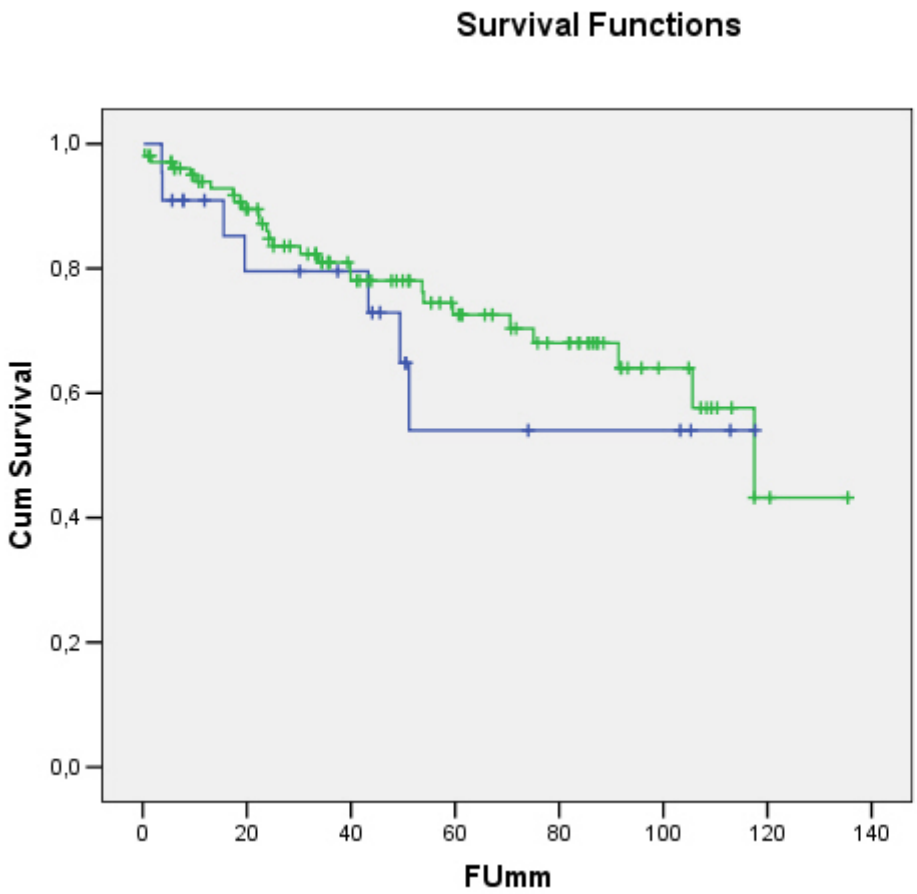


Pz < 65 aa: 80 mesi (63-97)*
Pz > 65aa: 97 mesi (87-107)*

p= 0,004

*: Valore espresso come tempo medio di follow-up e (Intervallo di confidenza al 95° percentile)

Sopravvivenza per i pazienti sottoposti a boost-BRT o con 3DCRT

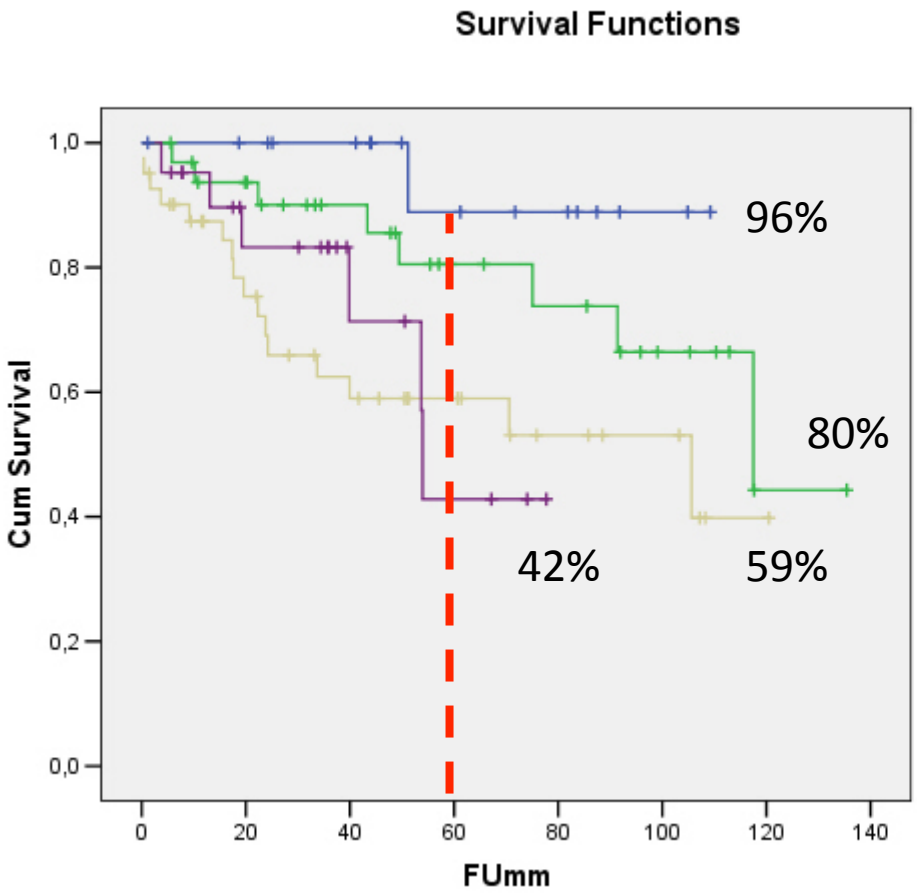


Boost-3DCRT: 97 mesi (85-09)*
Boost-BRT: 78 mesi (56-101)*

NS

*: Valore espresso come tempo medio di follow-up e (Intervallo di confidenza al 95° percentile)

Sopravvivenza in base al T

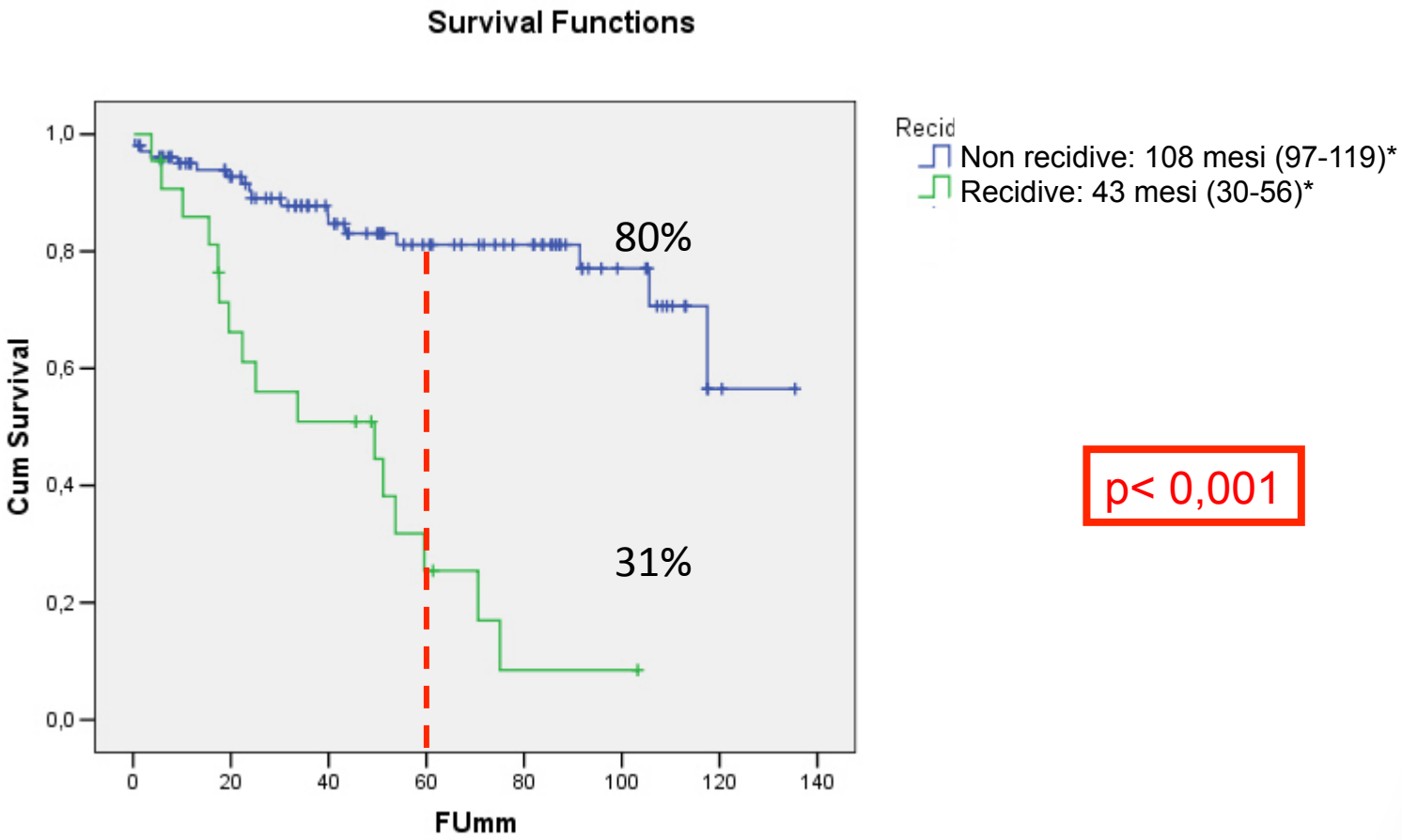


T1: 103 mesi (91-115)*
T2: 104 mesi (86-121)*
T3: 73 mesi (56-90)*
T4: 55 mesi (42-69)*

$p < 0,001$

*: Valore espresso come tempo medio di follow-up e (Intervallo di confidenza al 95° percentile)

Sopravvivenza dei pz con recidiva



p< 0,001

*: Valore espresso come tempo medio di follow-up e (Intervallo di confidenza al 95° percentile)

Modello di Cox per la sopravvivenza

Variabile	X^2	Significatività (P)	RR	(C.I. 95%)
Recidiva	19.051	< 0.001	5.189	(2.477-10.867)
T	5.962	0.015	1.746	(1.116-2.730)
Età > 65 aa	4.465	0.035	2.217	(1.059-4.641)

Conclusioni

- Non abbiamo riscontrato una differenza significativa tra le due metodiche anche se la prevalenza di anziani, il T, la presenza di recidive sono leggermente differenti tra le due popolazioni.

Possibile errore: bassa numerosità di alcuni gruppi ?

- L'età maggiore di 65 anni, lo sviluppo di recidiva nel corso della malattia ed il T sono variabili statisticamente significative per predire la mortalità/sopravvivenza.

(Chapet 2005, Int J. Radiation Oncology Biol. Phys)

STUDIO RETROSPETTIVO

TRIAL RANDOMIZZATI

Grazie per l'attenzione