



Dott.ssa Agnese Savini
Clinica Oncologica
AOU-Ospedali Riuniti-Ancona

**Mineralometria Ossea Computerizzata (MOC)
non dirimente nelle decisioni terapeutiche:
un caso emblematico
di carcinoma della prostata**



**VI CONGRESSO NAZIONALE DELLA SOCIETÀ ITALIANA
DI OSTEONCOLOGIA (ISO)**

Padova, 14-15 Novembre 2017

CASO CLINICO



69 anni

- Ipertensione arteriosa
- Diabete mellito



Maggio 2011

**Adenocarcinoma prostatico
Gleason 3 + 4 = 7
in 6/14 biopsie.**

PSA=16.4 ng/ml

**SCINTIGRAFIA OSSEA
TC ADDOME
RX TORACE**



Maggio 2011

**RT su loggia prostatica
(dose totale 74 Gy)**

**Iniziava terapia ormonale
Bicalutamide 150 mg**

DIAGNOSI

2011

2011



Maggio 2013



PET/colina:
Ipercaptazione linfonodale in sede iliaca
esterna sx e otturatoria sx (SUV 3,6)
captazione alla ghiandola prostatica

Progressione linfonodale

Bicalutamide 150
DIAGNOSI

2011

2011

2013

Iniziava BAT:
Bicalutamide 150 mg +
Leuprorelina 3.75 mg

Ottobre 2013

•PSA 2,54 ng/ml

Progressione
biochimica



STOP Bicalutamide 150 mg
INIZIA Deltacortene 5 mg x2
+ Leuprorelina 3.75 mg

Bicalutamide 150
DIAGNOSI

BAT

2011

2011

2013

Dicembre 2013

•PET/COLINA:
aumento captazione linfonodo
iliaco sx (4,2 vs 3,4) e su loggia
prostatica

**Progressione
linfonodale**



**Chemioterapia con
Docetaxel 75 mq/mq q 21**

Bicalutamide 150
DIAGNOSI

2011

2011

BAT
Deltacortene

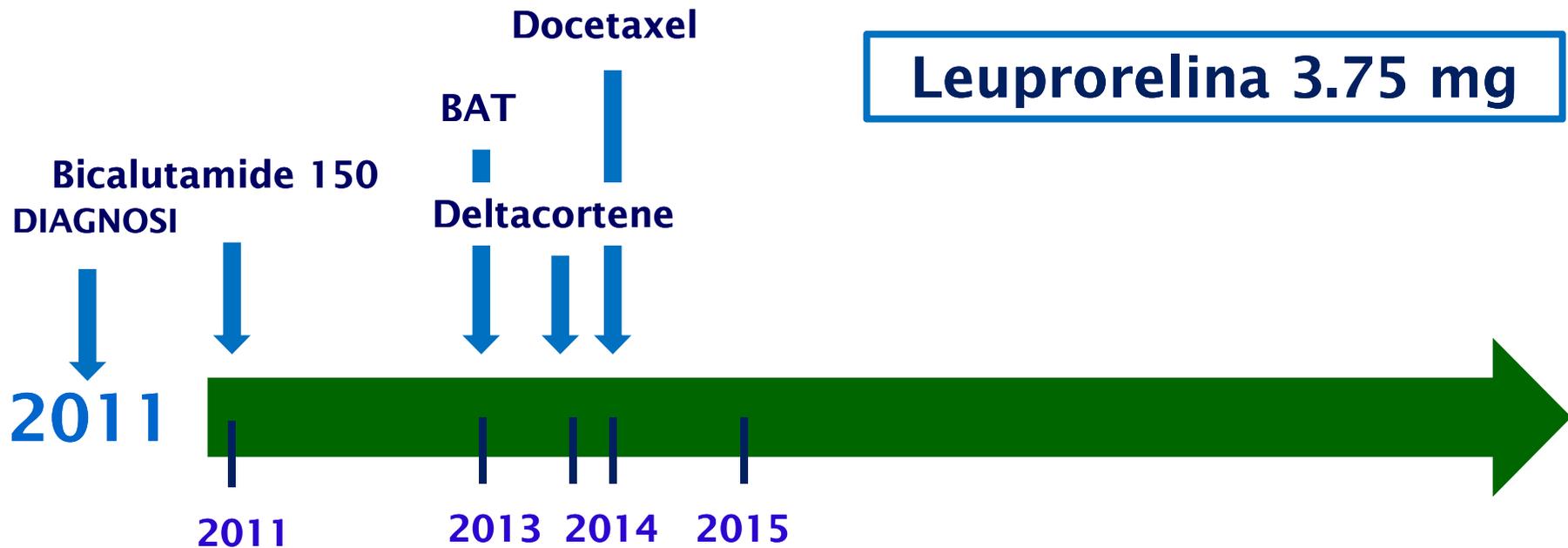
2013 2014

Gennaio - Giugno 2014

Docetaxel 75 mg/mq q21

↓ PSA

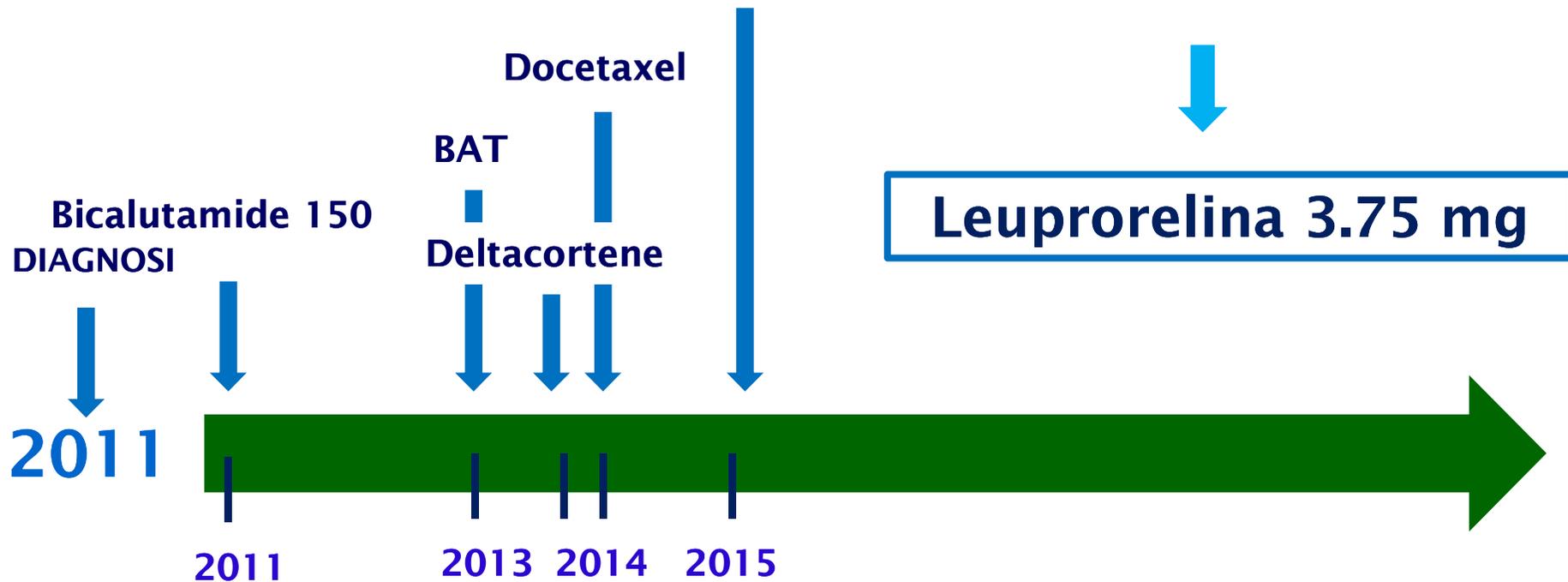
Leuprorelina 3.75 mg



Aprile 2015

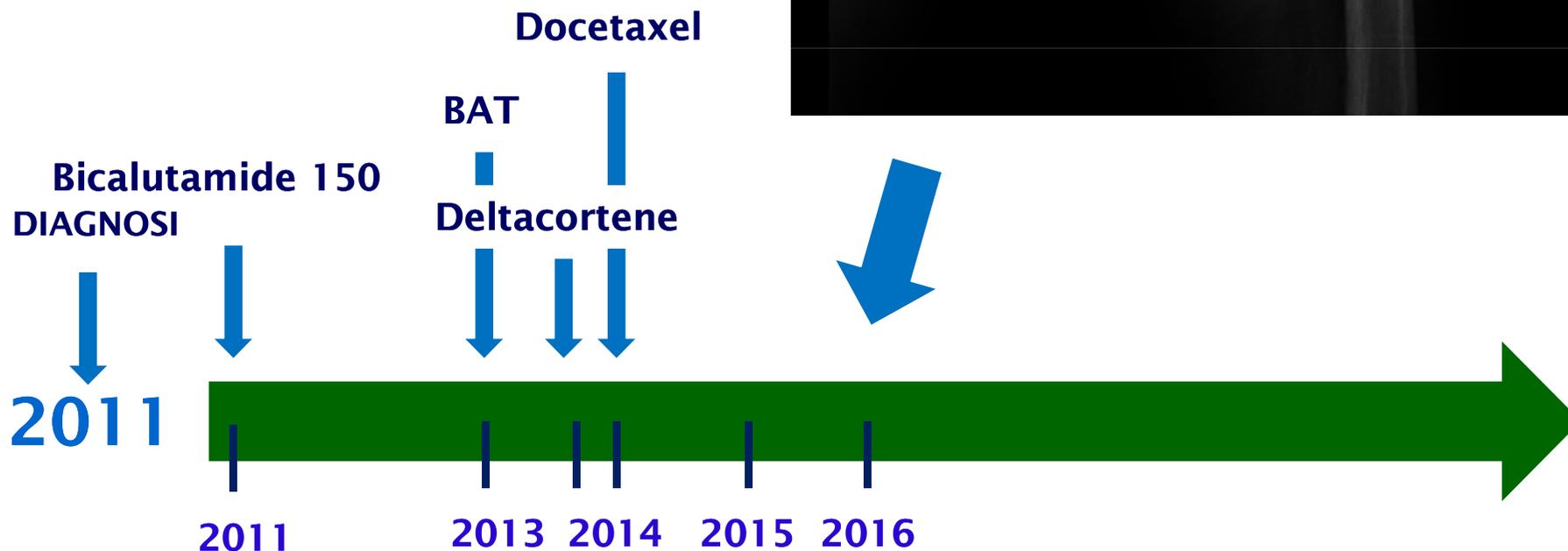
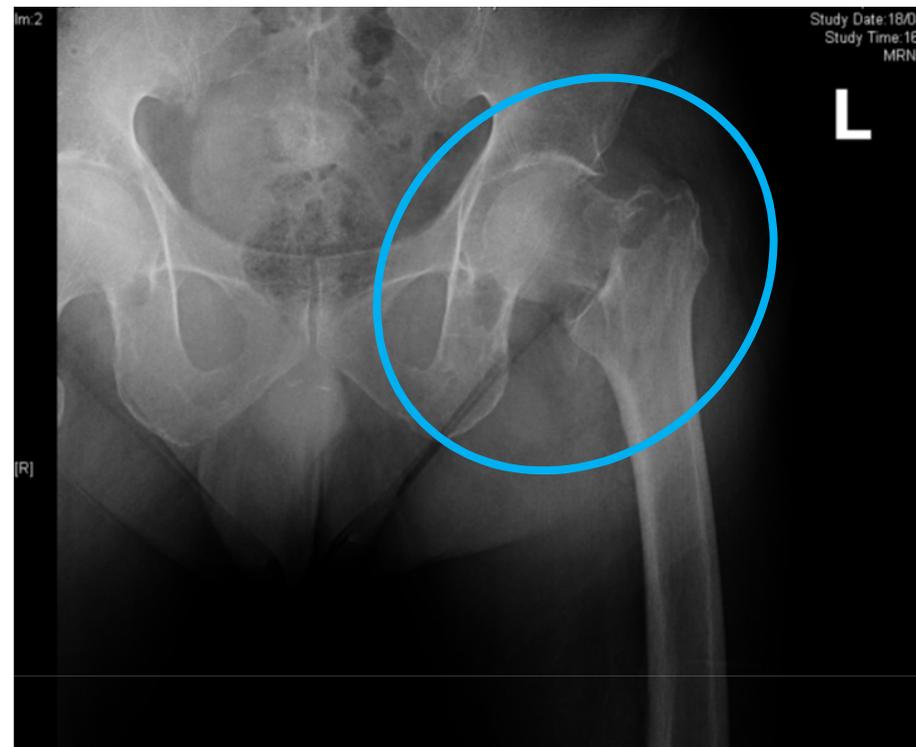
↑ PSA 5,1 ng/ml

Docetaxel 75 mg/mq q21



Aprile 2016

**FRATTURA SCOMPOSTA ED
INGRANATA EPIFISI
PROSSIMALE LATERALE
DEL FEMORE SX**

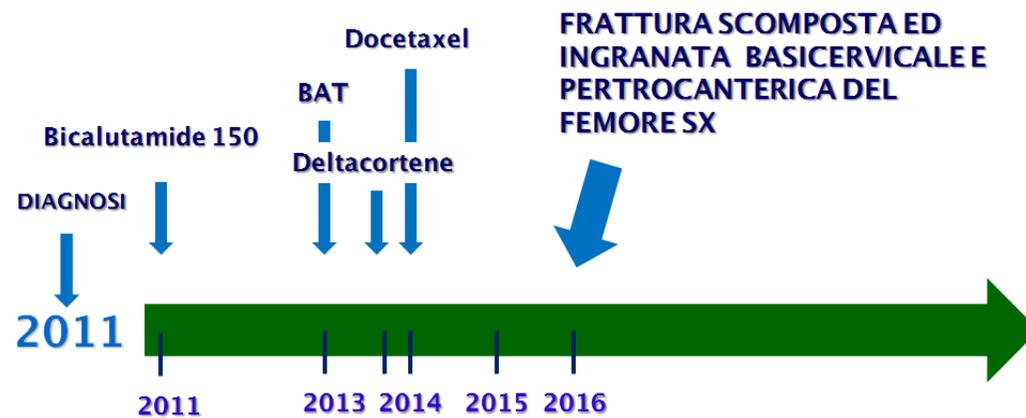




PROGRESSIONE OSSEA?

**FRATTURA SU BASE
OSTEOPOROTICA?**

**QUALI PARAMETRI
RADIOLOGICI / BIOUMORALI?**

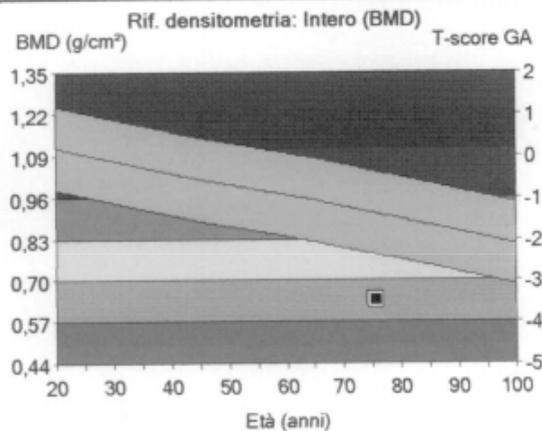
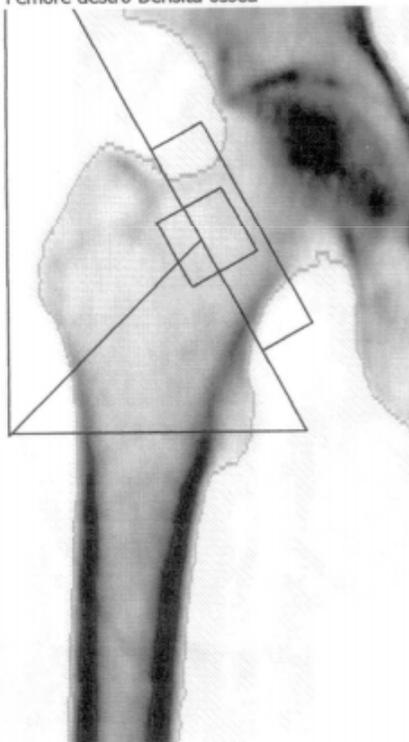




FRATTURA SU BASE OSTEOPOROTICA?

Data di nascita: 18/02/1942
Altezza / Peso: 168,0 cm 68,0 kg
Sesso / Etnia: Maschio Bianco

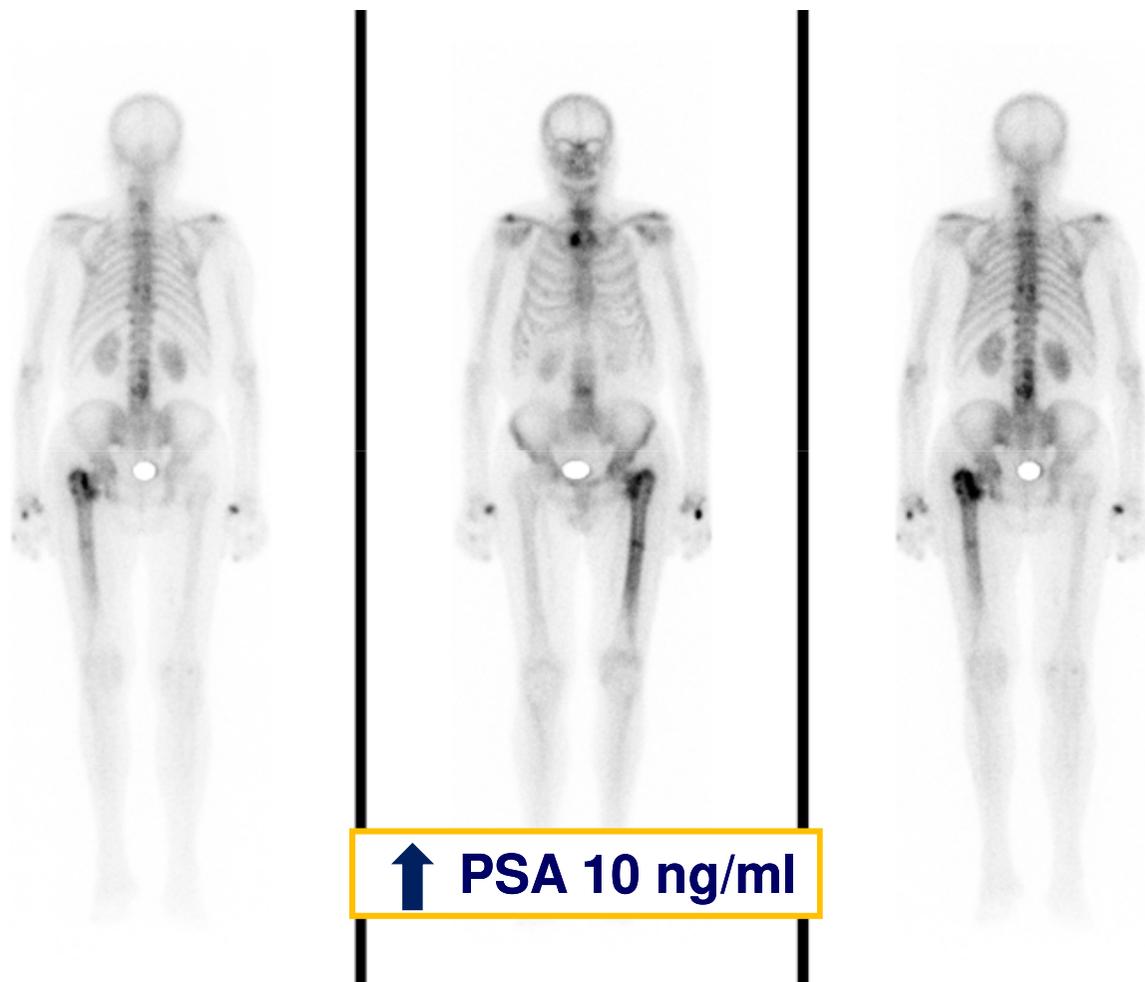
Femore destro Densità ossea



Regione	1		2		3	
	BMD (g/cm ²)	Giovane adulto (%)	T-score	Pari età (%)	Z-score	
Collo	0,599	56	-3,6	71	-1,9	
Ward	0,419	44	-4,2	64	-1,8	
Trocantere	0,522	56	-3,7	64	-2,7	
Intero	0,638	59	-3,5	70	-2,1	



PROGRESSIONE OSSEA?

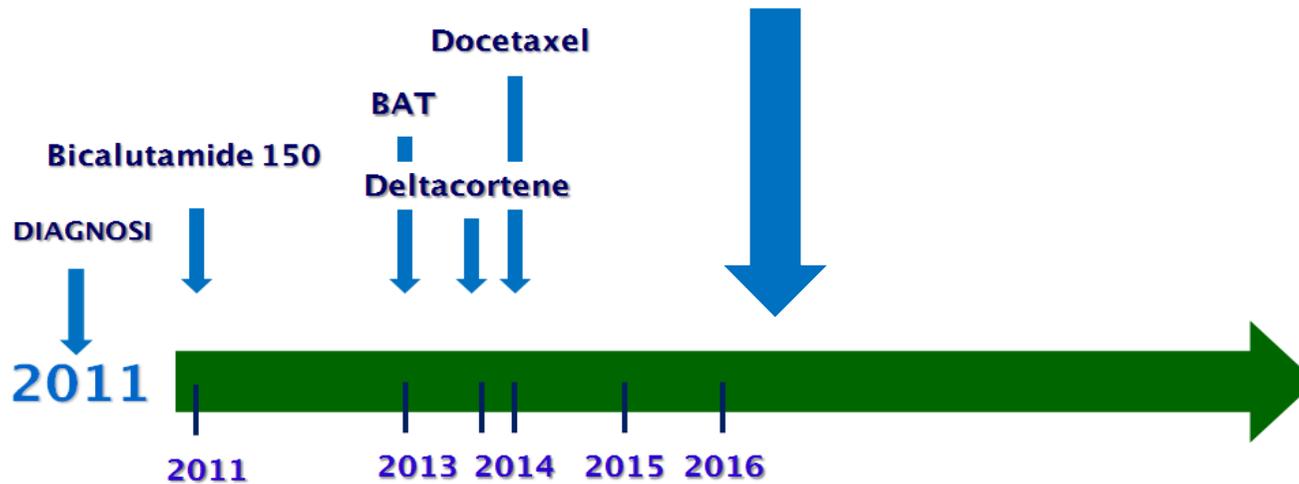




Luglio 2016

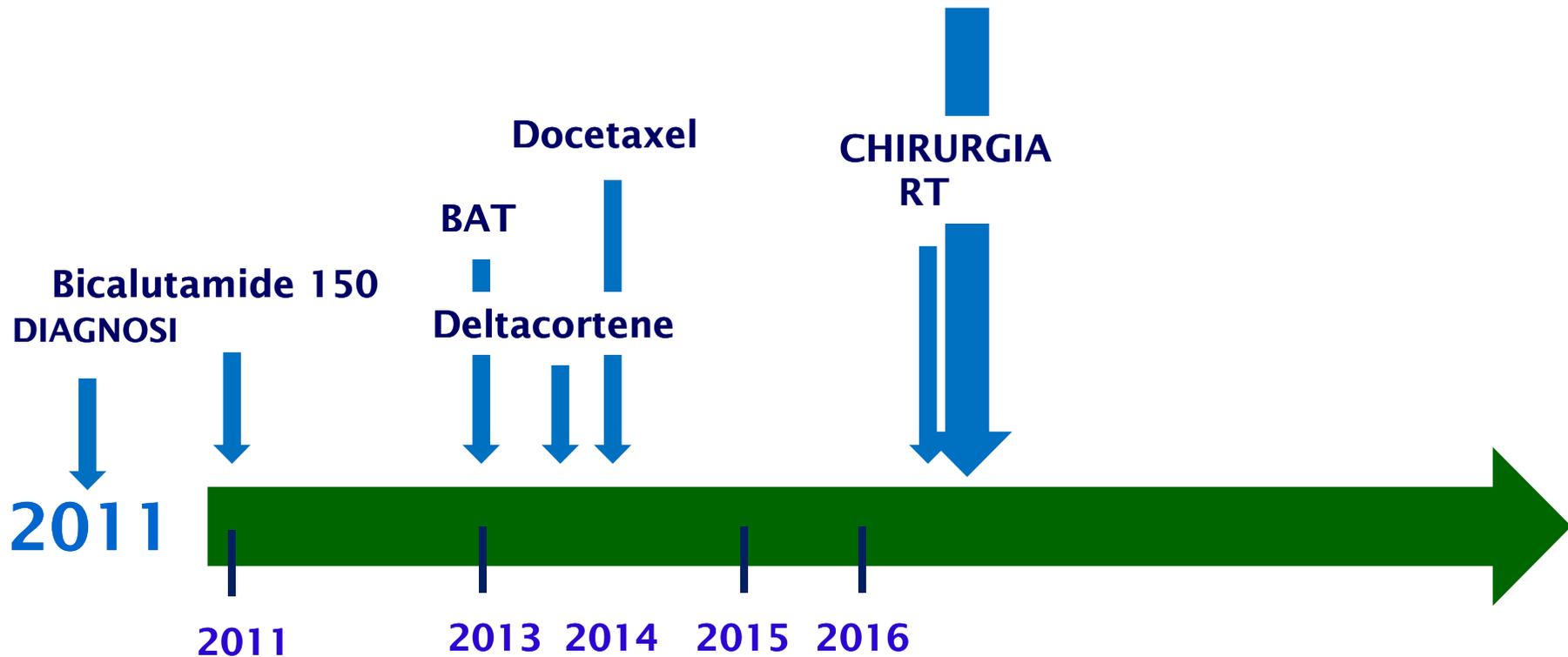
**RT su FEMORE SX
(2000 cGy in 5 frazioni)**

Denosumab 120 mg

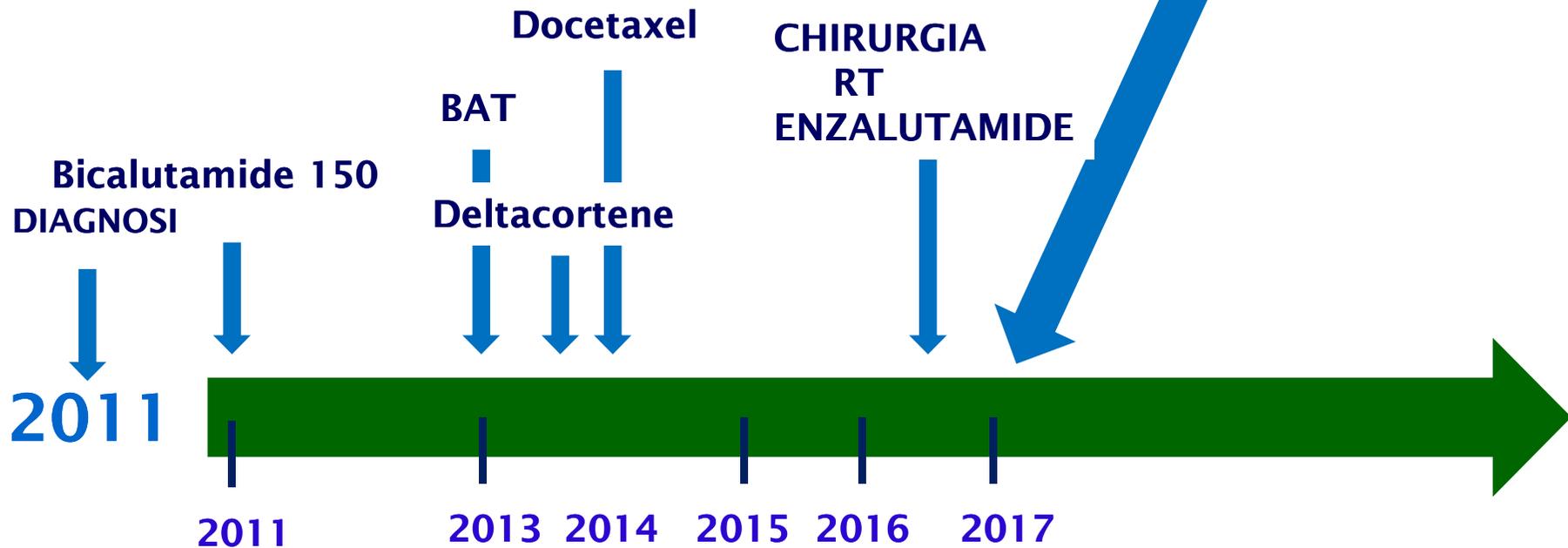
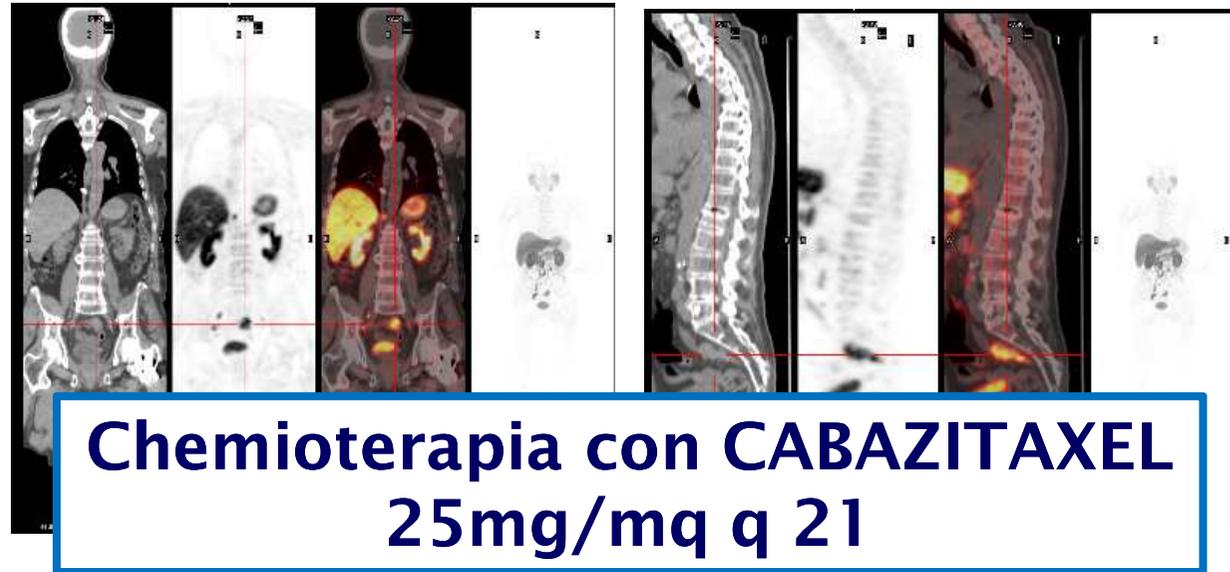


Luglio 2016

ENZALUTAMIDE 160 mg/die



Dicembre 2016

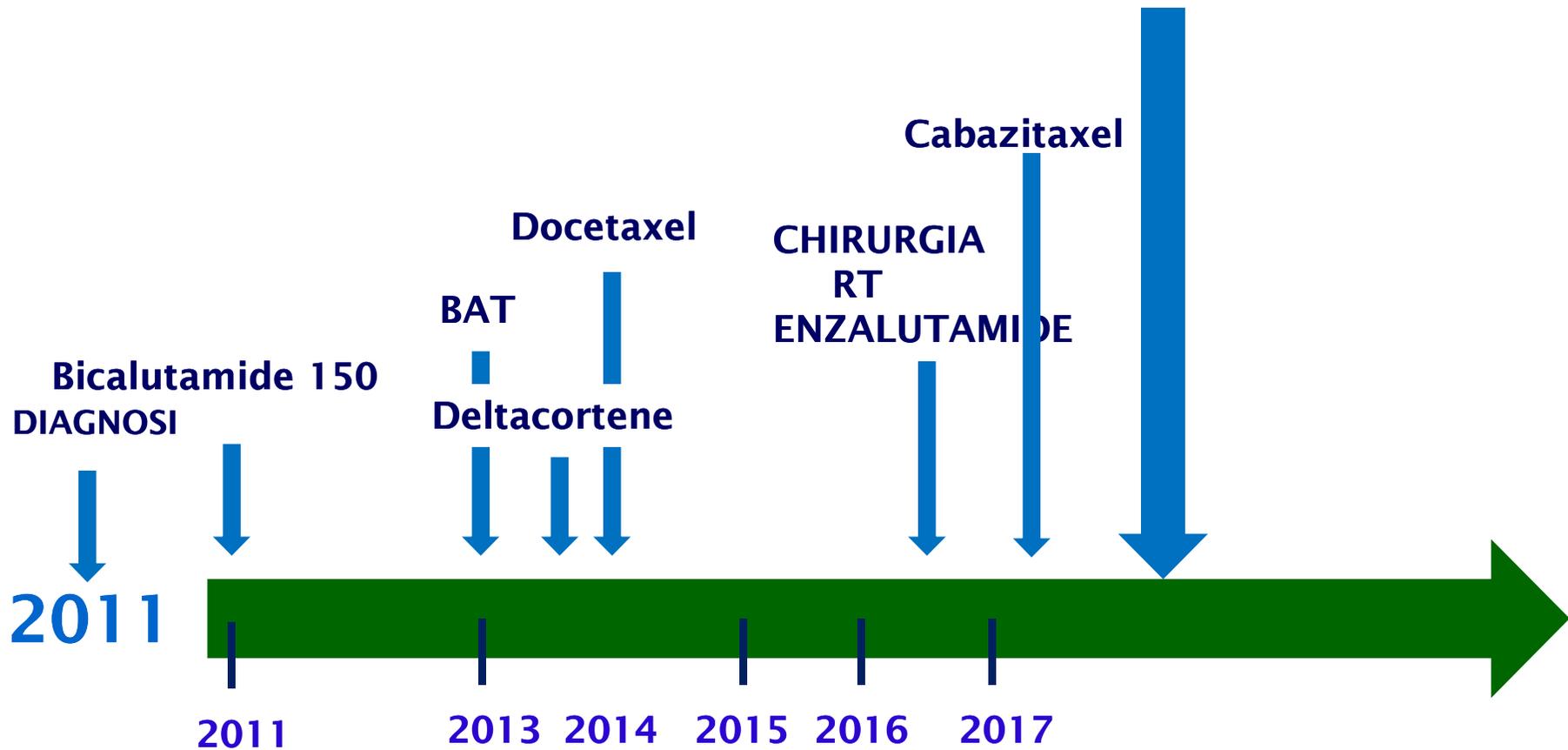


Giugno 2017

Progressione
linfonodale



Abiraterone 1000 mg/die



ADT AEs

“Big Three”

What you see

What you don't see

What you feel

Loss of libido

Erectile
dysfunction

Hot flashes
(distressful)

Weight gain
(increased risk of
obesity)

Gynecomastia

Loss muscle
mass, strength
(general frailty, feeling
weak, increase the
risk of falls and
fractures)

Decr size penis
and testes

Hair changes

Loss of BMD

Anemia

Onset/worsening
of lipids, HTN,
diabetes

(increased the risk of
cardiovascular
complication)

Fatigue

(very common
symptom)

Lack of energy,
Lack of initiative

Depression
(mood changes)

Emotional lability

Cognitive function
(forgetfulness, lack of
concentration)

Aches and pains

Biological and clinical effects of abiraterone on anti-resorptive and anabolic activity in bone microenvironment

Michele Valentini Tucci² Tonini

¹ Translat
² Depar

www.impactjournals.com/oncotarget/

Oncotarget, 2017, Vol. 8, (No. 12), pp: 20113-20121

Research Paper

Cabozantinib targets bone microenvironment modulating human osteoclast and osteoblast functions

Marco Fioramanti^{1,*} Daniele Santini^{1,*} Michele Tulliani¹ Giulia Ribelli¹, Paolo
i¹, Vincenzo Denaro²,

Cancer Therapy: Preclinical

Clinical
Cancer
Research

, Rome, Italy

Radium-223 Inhibits Osseous Prostate Cancer Growth by Dual Targeting of Cancer Cells and Bone Microenvironment in

Mari I. Suominen¹, Katja M. Fagerlund¹, Jukka Jukka P. Morko¹, ZhiQi Peng¹, Esa J. Alhoniemi Dominik Mumberg⁵, Karl Ziegelbauer⁵, San Robert L. Vessella⁴, and Arne Scholz⁵

www.impactjournals.com/oncotarget/

Oncotarget, 2017, Vol. 8, (No. 43), pp: 74987-75006

Research Paper

Cabozantinib-induced osteoblast secretome promotes survival and migration of metastatic prostate cancer cells in bone

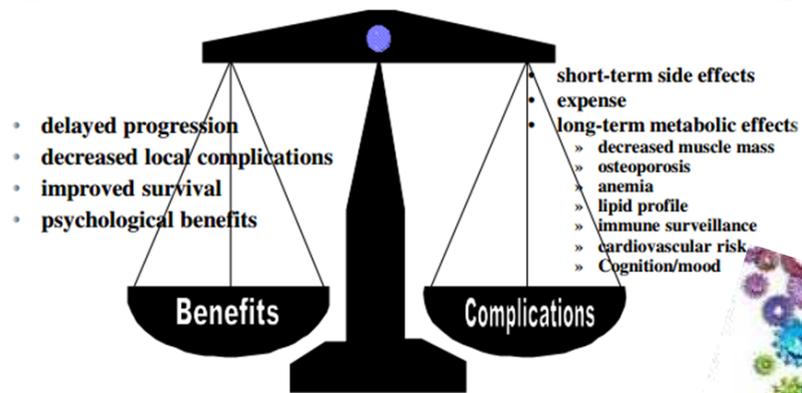
Kai-Jie Yu^{1,5,6,*}, Jeffrey K. Li^{1,*}, Yu-Chen Lee^{1,*}, Guoyu Yu¹, Song-Chang Lin¹, Tianhong Pan⁷, Robert L. Satcher⁷, Mark A. Titus², Li-Yuan Yu-Lee⁴, Wen Hui Weng⁶, Gary E. Gallick^{2,3} and Sue-Hwa Lin^{1,2,3}

¹Department of Translational Molecular Pathology, The University of Texas M. D. Anderson Cancer Center, Houston, Texas, USA

²Department of Genitourinary Medical Oncology, The University of Texas M. D. Anderson Cancer Center, Houston, Texas, USA

³The University of Texas Graduate School of Biomedical Sciences at Houston, Houston, Texas, USA

⁴Department of Radiation Oncology, The University of Texas M. D. Anderson Cancer Center, Houston, Texas, USA



F. Pantano, et al.

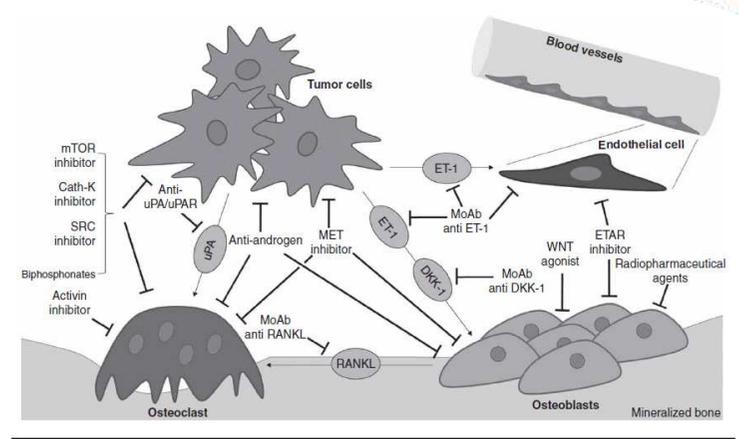


Figure 1. Pathways and molecules candidates in targeting bone metastases.





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Padova, 14-15 Novembre 2017
PALAZZO ZACCO

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Comitato Scientifico ISO: A. Bernini, F. Bertolotti, M. Caporini, R. Corradi, T. Iorlani, G. Lorenzetti
Responsabili Scientifici: A. Brunello, S. Zavanò

Con il patrocinio di:



Associazione Italiana
di Osteologia e Osteoncoologia



Istituto Osteologico
Veneto



Fondazione Osteologica
Italiana