



## **III International Meeting on Interim PET in Lymphoma**

**Menton, 26-27 september 2011**

### **THE OUTCOME OF DIFFUSE LARGE B-CELL LYMPHOMA (DLBCL) PATIENT TREATED WITH R-CHOP IS NOT PREDICTED BY INTERIM 18-FDG-POSITRON EMISSION TOMOGRAPHY/COMPUTED TOMOGRAPHY (PET) EVALUATION**

**Pregno P., Chiappella A., Bellò M., Passera R., Botto B., Ferrero S., Franceschetti S., Giunta F., Ladetto M., Menga M., Nicolosi M., Puccini B., Rigacci L., Vaggelli L., Salvi F., Bisi G. and Vitolo U.**

**Patrizia Pregno**

**Hematology 2**

**San Giovanni Battista Hospital and University, Torino, Italy**

## **AIM OF THE STUDY**

**It was to determine in DLBCL patients the predictive value of Interim PET (I-PET) and Final PET (F-PET) on PFS**

## **PATIENTS AND METHODS**

**From April 2004 to December 2008 88 newly diagnosed DLBCL patients, treated with 6-8 R-CHOP regardless of I-PET, were included in this retrospective study.**

**PET were performed at diagnosis, after 2-4 courses and at the end of therapy with centrally reviewing according to visual dichotomous criteria (Deauville 2009 criteria).**

# CLINICAL FEATURES AND PET RESULTS

88 patients with median age 55 years (range 18-80)

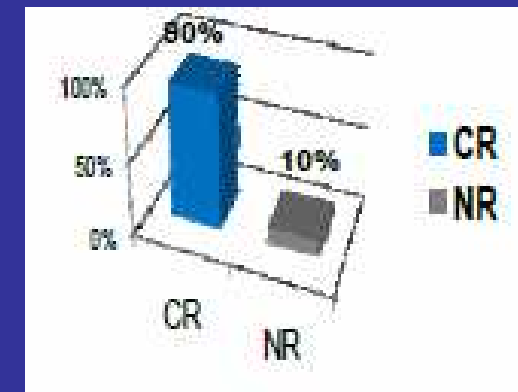
Male/Female	47/53%
Stage I-II/III-IV	33/67%
PS >1	27%
LDH >upper limit	42%
BM involvement	25%
N extran sites >1	31%
Bulky disease	15%
IPI Risk L-LI/IH-H	53-47%

## Treatment plan

	Patients
R-CHOP14	57 (65%)
R-CHOP21	31 (35%)
+ IF-RT	14 (16%)

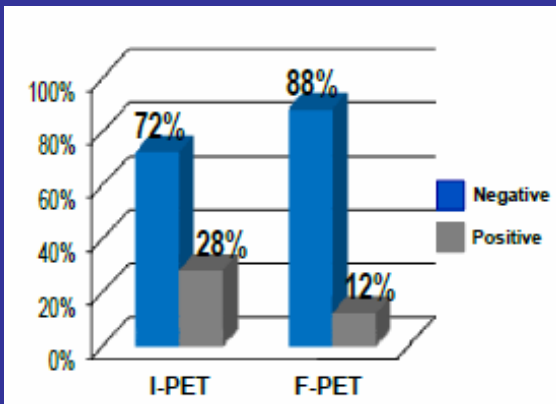
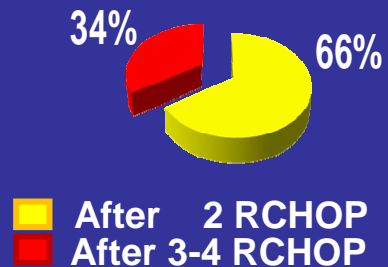
G-CSF support was given in 68% of R-CHOP21 and in 100% of R-CHOP14

## Clinical response



## PET results

### Interim PET Timing

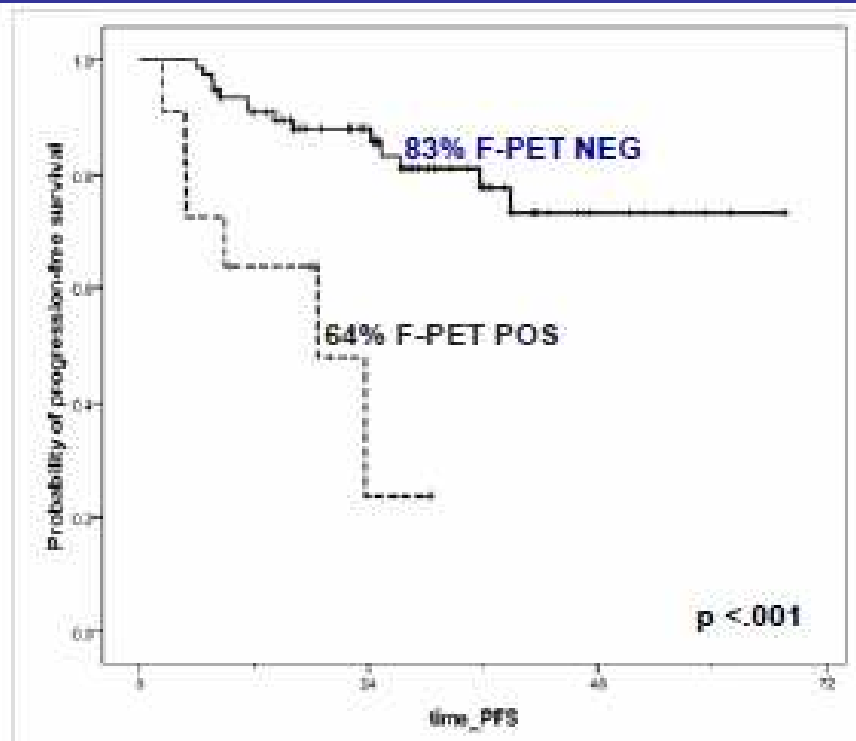
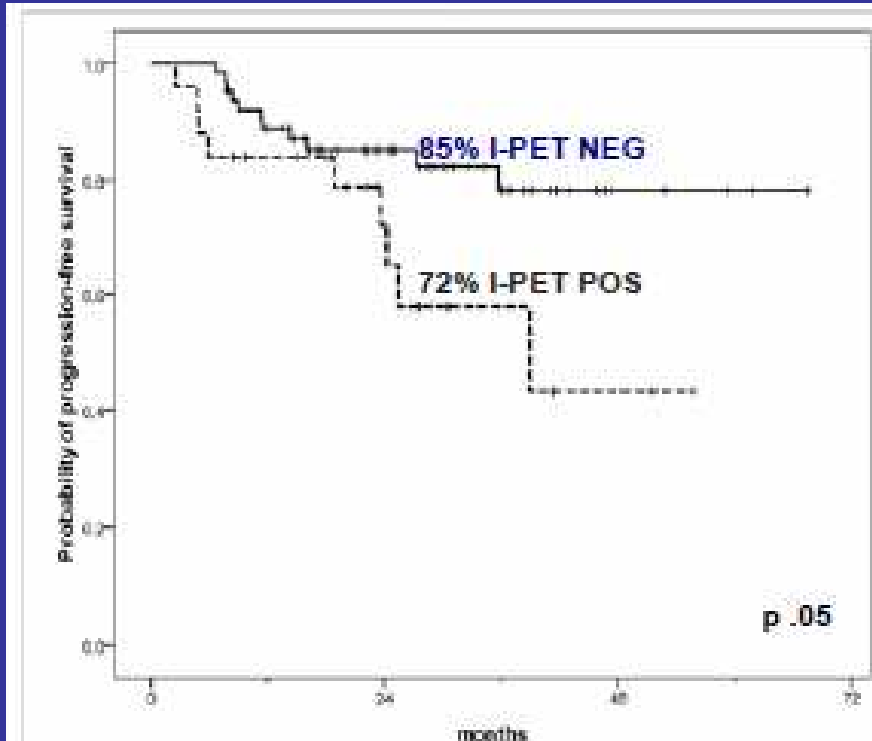


### I-PET and F-PET Results Correlation

Patients	F-PET neg	F-PET pos
I-PET neg 63	62 (98.4%)	1 (1.6%)
I-PET pos 25	15 (60.0%)	10 (40%)

# PFS ACCORDING TO PET RESULTS

Median FU 26,2 months; 2-ys PFS by Interim-PET and Final PET



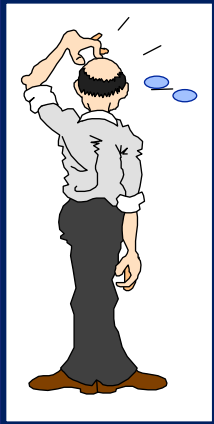
## UNIVARIATE COX'S MODEL ANALYSIS FOR PFS

I-PET (Pos vs Neg)	2.45	1.01-5.93	<b>0.047</b>
F-PET (Pos vs Neg)	5.97	2.19-16.28	<b>&lt;0.001</b>

Others: LDH > normal, >1 extranodal sites, BM+, IH-H IPI risk were predictors of lower PFS rates

## BIVARIATE COX'S MODEL ANALYSIS FOR PFS

I-PET (Pos vs Neg)	1.27	0.40-4.03	<b>0.691</b>
F-PET (Pos vs Neg)	5.03	1.37-18.43	<b>0.015</b>



## CONCLUSIONS

- ✓ Our results indicate that in DLBCL patients treated with R-CHOP Interim positive PET by visual analysis is not predictive of a worse outcome.
- ✓ Conversely, Interim negative PET is associated with a good prognosis.
- ✓ PET results at the end of the treatment strongly correlated with PFS.
- ✓ However, larger prospective studies and harmonization of Interim PET reading criteria are needed in DLBCL.

# ACKNOWLEDGMENTS

## Hematology 2 Torino

### **Umberto Vitolo**

- ✓ Giulia Benevolo
- ✓ Carola Boccomini
- ✓ Barbara Botto
- ✓ Annalisa Chiappella
- ✓ Maura Nicolosi
- ✓ Lorella Orsucci



## Italian Hematology Dept

### Hematology 1 Torino

- ✓ **Mario Boccadoro**
- ✓ Marco Ladetto
- ✓ Simone Ferrero

### Hematology Firenze

- ✓ **Alberto Bosi**
- ✓ Luigi Rigacci
- ✓ Benedetta Puccini

### Hematology Alessandria

- ✓ **Alessandro Levis**
- ✓ Flavia Salvi

### Hematology Novara

- ✓ **Gianluca Gaidano**
- ✓ Silvia Franceschetti

## Nuclear Medicine Torino

- ✓ **Gianni Bisi**
- ✓ Marilena Bellò
- ✓ Giancarlo Castellano
- ✓ Francesca Giunta
- ✓ Massimo Menga
- ✓ Roberto Passera