Second international workshop on interim PET in lymphoma

Menton , Palais de l'Europe, April 8-9th, 2010

Five-point scale and Deauville criteria (2009)

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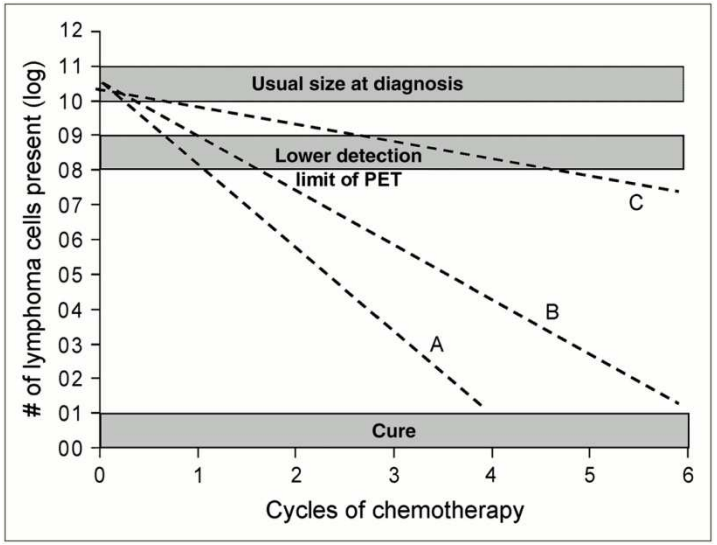
Interim PET has several meanings

During therapy, we look with PET at a continuous metabolic phenomenon

- **Early PET after 1 to 2 cycles:**
  - Response of the cells with the highest doubling time
  - Early identification of responders and non responders
  - PET negativity is not mandatory

- **Early PET after 3 or 4 cycles:**
  - Weighted by the regrowth
  - Identify slow responders

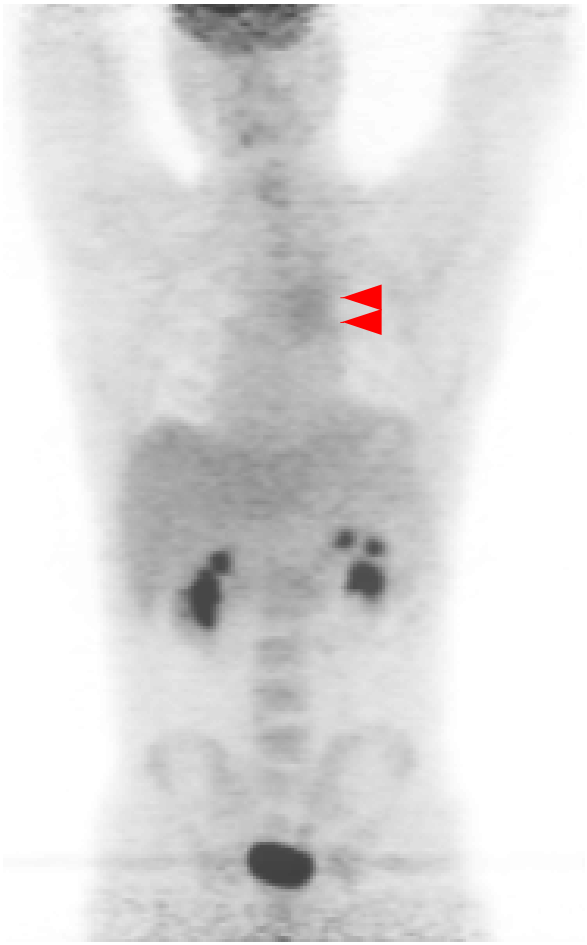


Regular Visual reporting interim PET

- **PET+ or PET-**
- **Binary dichotomous reporting of a continuous phenomenon**
- **Loss of information**

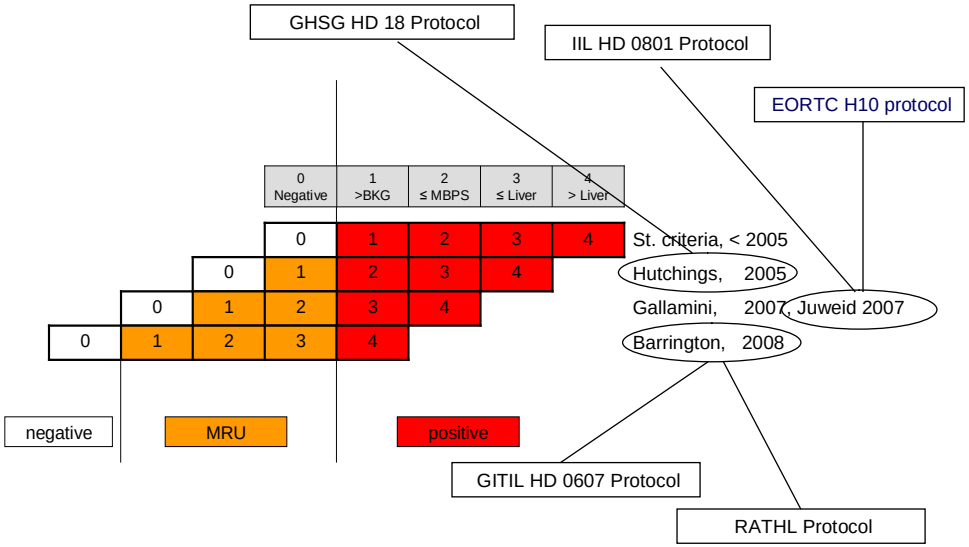
Positivity/Reference background

- Nearby background
- Mediastinal blood pool
- Liver



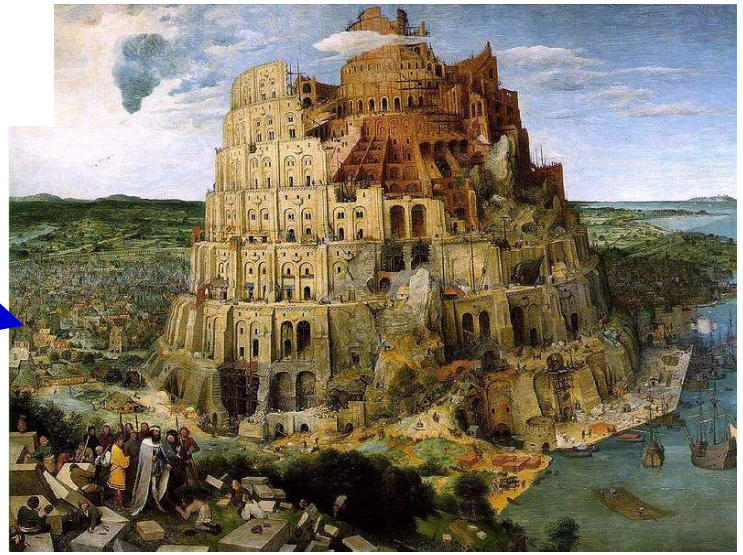
A lot of criteria

The MRU definition, as the time goes by.



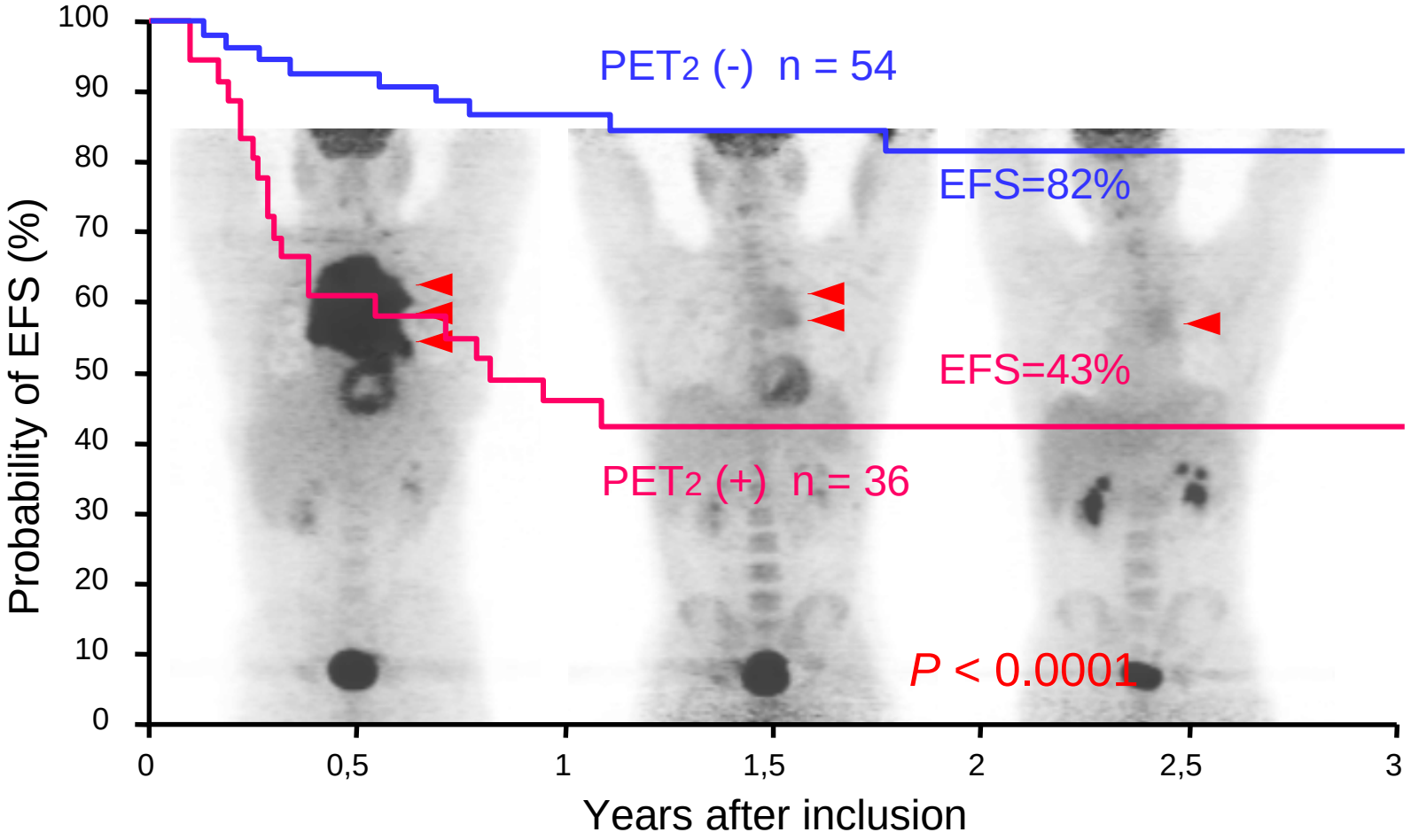
PPV range 25%-100%

From Gallamini, 2009, Leuk Lymph



On which curve is this patient?

Significance of minimal residual uptake (positive or not ?)



Interim PET usefulness is questioned but there are many ongoing trials

Meta analysis (Terasawa, JCO,2009)

Editorial (Cheson, JCO, 2009)

Horning (Blood, 2009)

Moskowitz, 98 patients, PET at 4 cycles, median 44 months, 33/38 PET+ Biopsy-, 26 PF (JCO, 2010)

- No firms interpretation criteria
- Inter observer variability
- False positives
- PET in the Rituximab era (Han, Ann Oncol, 2008)
- Should we biopsy PET positive lesions?

First workshop on Interim PET in Lymphoma, Deauville, April 3rd 2009

Consensus Committee

Hematologists- Oncologists

- **L. Sehn,** Vancouver, **C. Haioun,** Créteil, **J.M. Zijlstra,** Amsterdam, **A. Gallamini,** Cuneo, **M. Hutchings,** Copenhagen, **G. Mikhaeel,** London, **U. Dührsen**, Essen, **A. Huttmann,** Essen, **A. Polliack,** Jerusalem, **P. Brice** (GELA)**, M. André** (GELA)**, N. Mounier** (GELA)**, O. Casasnovas** (GELA)**, F. Morschhauser** (GELA), **T. Terasawa,** Nagoya, Boston

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- **R Boellaard**, Amsterdam **, S Bardet**, Caen (GELA) **, P Vera ,** Rouen (GELA)**, Van der Boght Th** Louvain (GELA)**, A. Biggi,** Cuneo**, M. Meignan,** Crétei (GELA) **, E Itti**, Créteil (GELA)**, S P Müller** Essen**, M O'Doherty**, London**, F. Kraber Bodéré,** Nantes

Meignan, Gallamini, Haioun 2009, Leuk Lymph

Deauville guidelines

two groups of experts reached consensus:

- baseline PET/CT is mandatory.
- interim PET is performed early (2-4 cy.)
- continuous nature of the data is preserved
  (instead of reporting a binary decision, i.e. either an ordinal visual score or SUV data is recommended)

Five-point scale

1. No uptake
2. Uptake ≤ mediastinum
3. Uptake > mediastinum but ≤ liver

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4. Uptake moderately increased above liver at any site
5. Markedly increased uptake at any site including new sites of disease

Deauville guidelines

- For categories 2-4, quantification (SUV_{max}) should be investigated (GELA strategy).

- For therapeutic decisions, a cut-off should be determined according to the clinical strategy (lymphoma subtypes, (de)-escalation of therapy).

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International Validation Study

- To investigate the consensus criteria on an international retrospective cohort of lymphoma (HL,NHL) patients.
- To assess the interobserver variability of these criteria