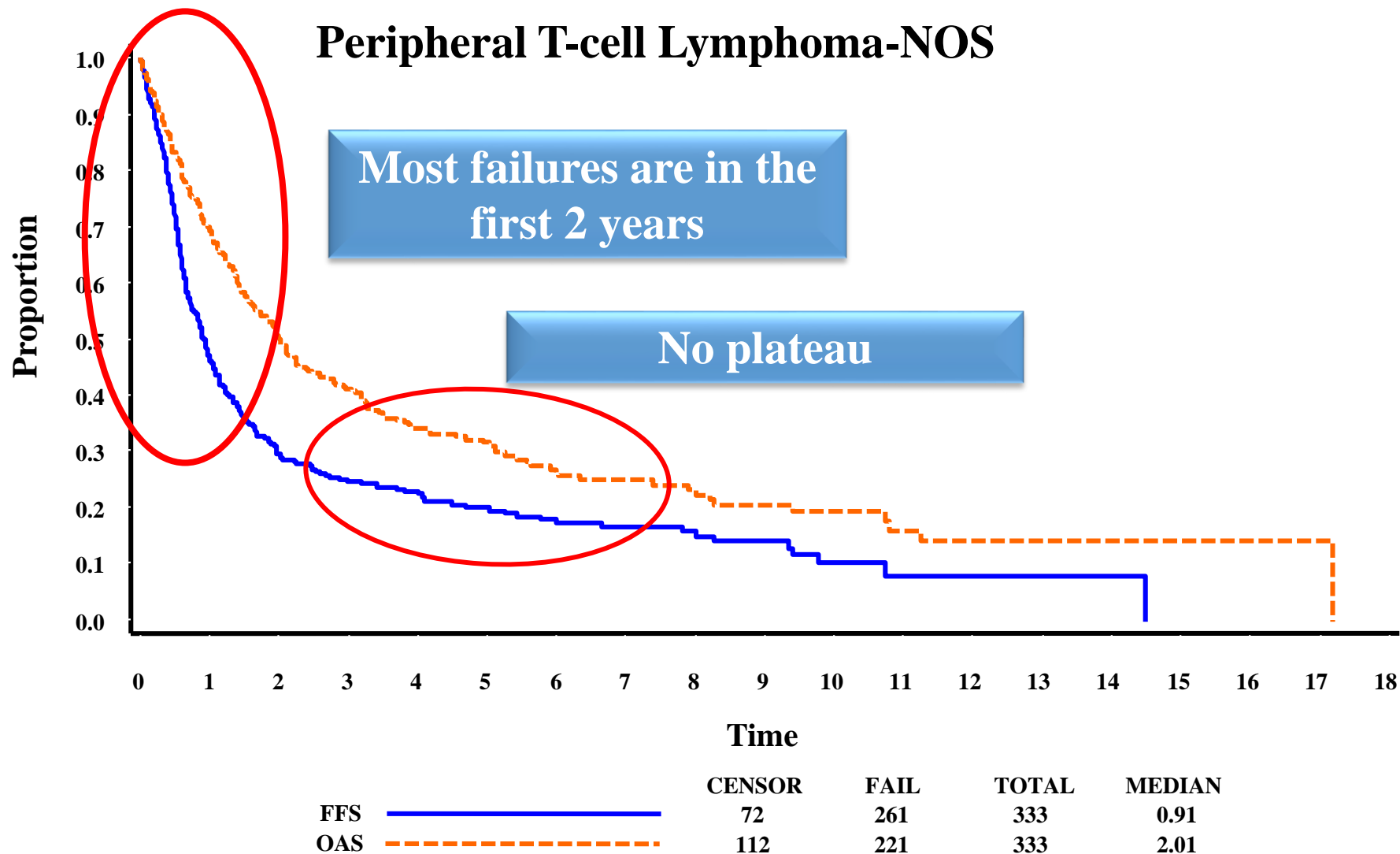


**Should ASCT in 1st remission be the standard
of care for patients with PTCL?**

Against.....B **Pro**

Where we have been: Overall and Failure-free Survival



Historical data with CHOP?

Selected Studies

Reference	Treatment	Histology	N	ORR	CR	PFS / EFS
Savage KJ, et al.	Almost all	PTCL / IS	117	84%	64%	29% (5 yr)
Reimer P, et al.	Prospective	AITL / ALCL			39%	ASCT
Simon KJ, et al.	CHOP vs VIP-rABVD, Prospective	PTCL (30) / AITL / ALCL	43	62%	39% (PTCL 29%)	41% (2 yr) Lower for PTCL

◆ ORR 60-80+%

◆ CR 39-60+%

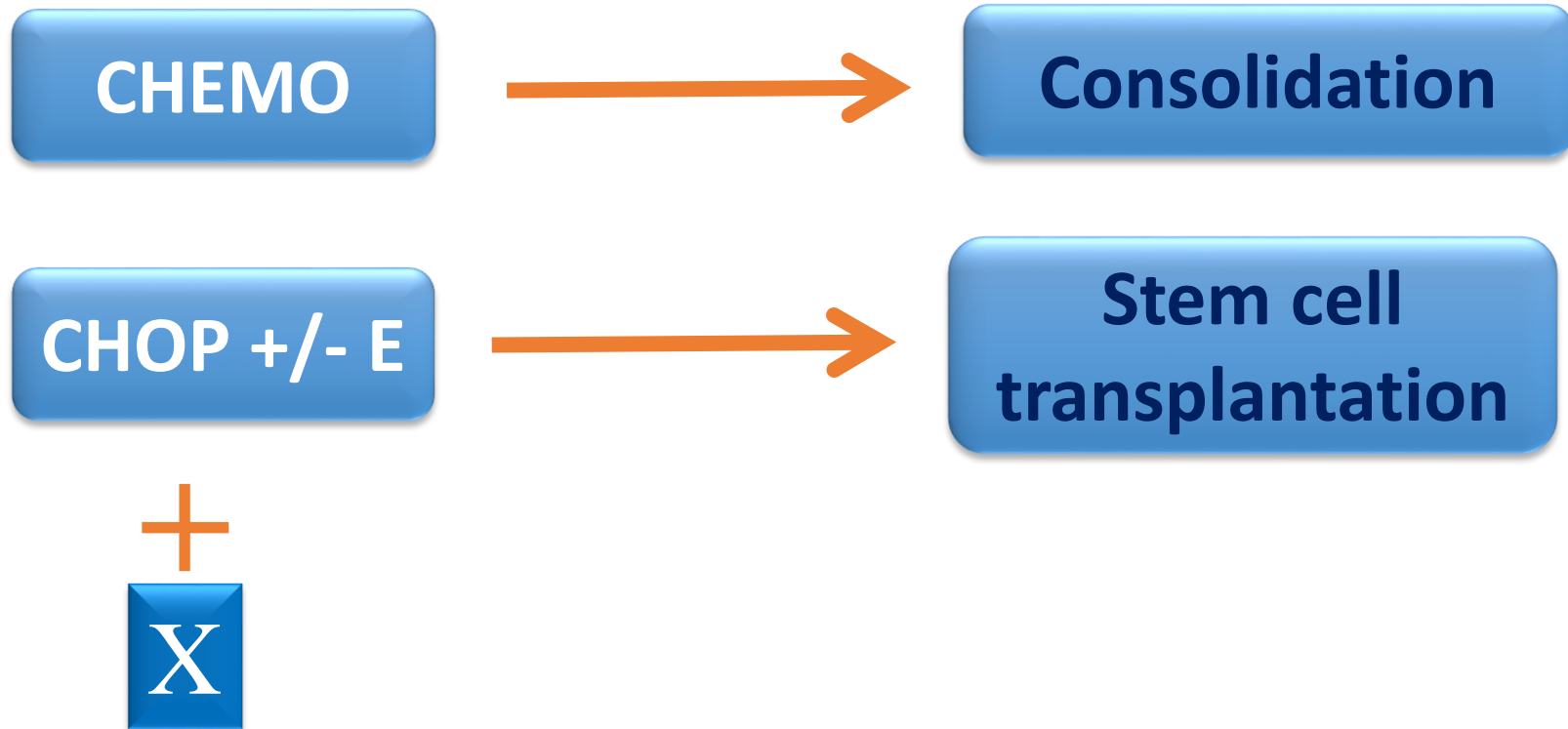
◆ Lack of durable remissions

VIP-rABVD, etoposide, ifosfamide, cisplatin alternating with doxorubicin, bleomycin, vinblastine, dacarbazine (VIP-reinforced-ABVD).

Savage KJ, et al. *Ann Oncol*. 2004;15(10):1467-1475; Reimer P, et al. *J Clin Oncol*. 2009;27(1):106-113;

Simon A, et al. *Br J Haematol*. 2013;151(2):159-166.

Current treatment approach for T-cell lymphomas: front-line



- Brentuximab vedotin ---
- Romidepsin
- Pralatrexate
- Belinostat
- Alemtuzumab

Peripheral T-cell lymphomas in a large US multicenter cohort: prognostication in the modern era including impact of frontline therapy

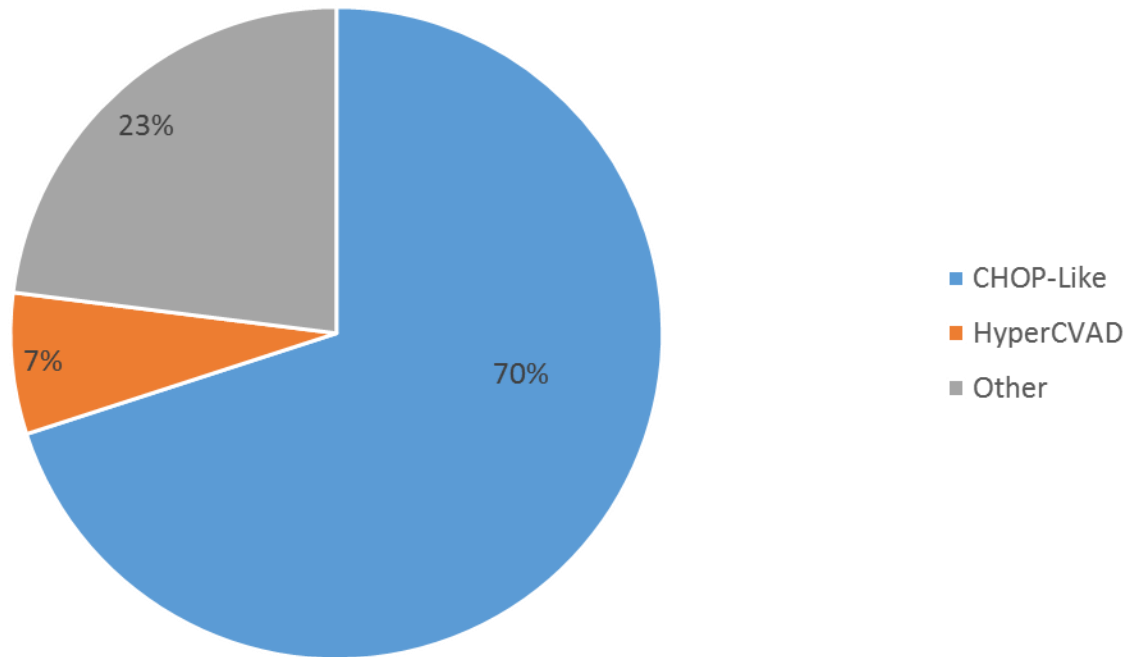
J. S. Abramson¹, T. Feldman², A. R. Kroll-Desrosiers³, L. S. Muffly⁴, E. Winer⁵, C. R. Flowers⁶, F. Lansigan⁷, C. Nabhan⁴, L. J. Nastoupil⁶, R. Nath³, A. Goy², J. J. Castillo⁸, D. Jagadeesh³, B. Woda³, S. T. Rosen⁹, S. M. Smith⁴ & A. M. Evens^{10*}

¹Center for Lymphoma, Massachusetts General Hospital Cancer Center, Boston; ²John Theurer Cancer Center, Hackensack University Medical Center, Hackensack; ³Department of Hematology/Oncology, University of Massachusetts Medical School, Worcester; ⁴Department of Hematology/Oncology, University of Chicago, Chicago; ⁵Department of Hematology/Oncology, Rhode Island Hospital, Providence; ⁶Department of Hematology/Oncology, Emory University School of Medicine, Atlanta; ⁷Department of Hematology/Oncology, Dartmouth-Hitchcock Medical Center, Lebanon; ⁸Department of Hematology/Oncology, Miriam Hospital, Providence; ⁹Robert H. Lurie Comprehensive Cancer Center, Northwestern University, Chicago; ¹⁰Department of Hematology/Oncology, Tufts Medical Center, Boston, USA

341 newly diagnosed patients from 2000-2011

PTCL NOS	31%
ALCL	26%
AITL	23%
NK-TCL	7%
ATLL	6%
Other	7%

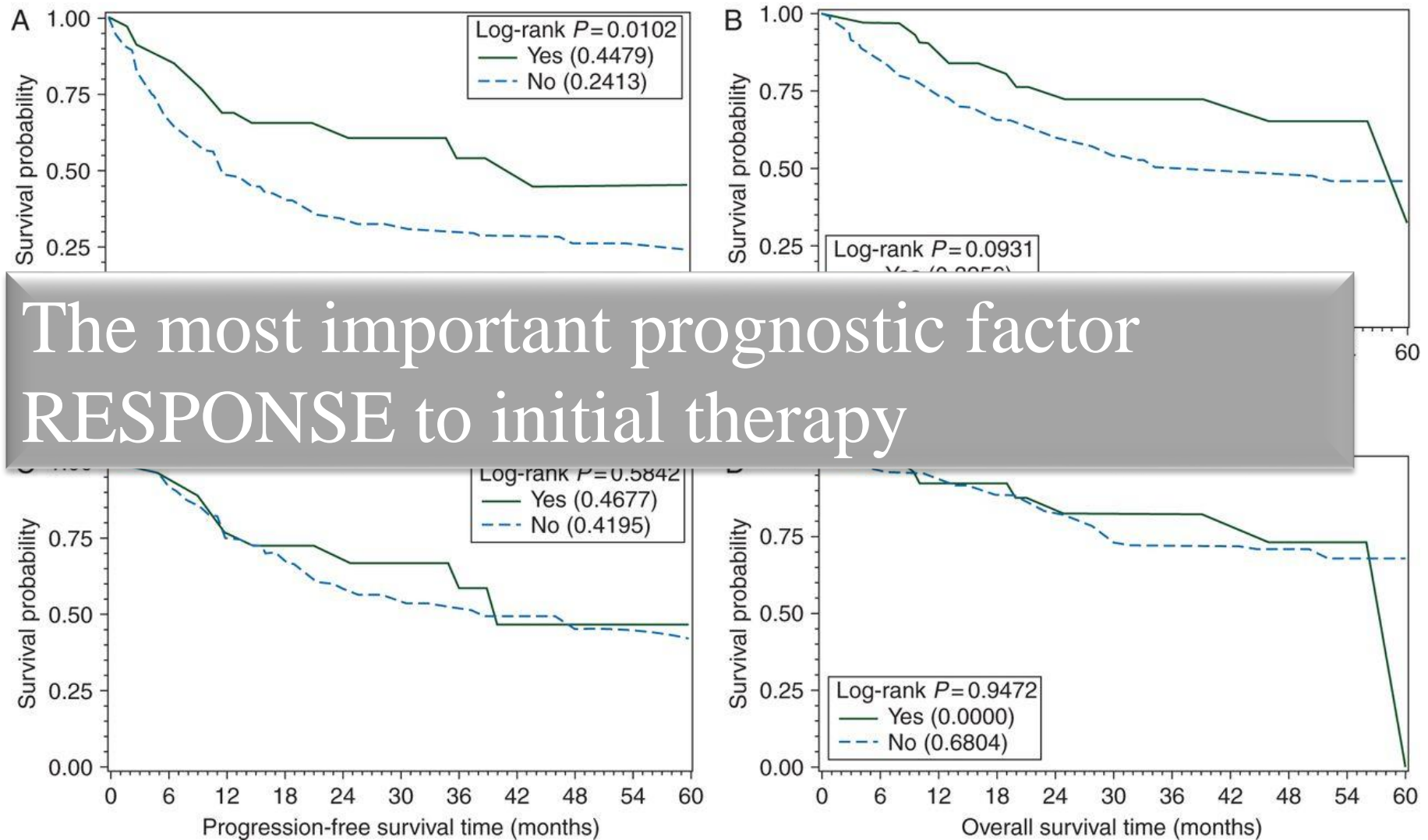
Treatment



ORR 73%
24 % had primary refractory disease

33 patients (10%) underwent SCT in first remission
No benefit on MVA when controlling for CR, Stage, LDH, albumin

PFS (A) and OS (B) by consolidative SCT in all patients, and PFS (C) and OS (D) by SCT limited to patients in CR following induction chemotherapy.



J. S. Abramson et al. Ann Oncol 2014;25:2211-2217

Autologous SCT in PTCL

Retrospective

Schetelig et al.	14	Diverse	86% CR	5yr-60%
Rodriguez et al.				5yr-60%
Yamazaki et al.				3yr-72%
Rodriguez et al.	74	BEAM/BEAC/CVB/Cy+TBI	No data	5yr-68%
Feyler et al.	64	Diverse	No data	3yr-53%
Kyriakou et al.	146	Diverse	70% CR	4yr-59%

Retrospective OS 53-72%

Prospective

Haoun et al.	33	Diverse	No data	No data
Gisselbrecht et al.				5yr-32%
Reimer et al.	83	Cy/TBI	58% CR	3yr-48%
Mercadal et al.	41	High-dose CHOP-ESHAP	51% CR	4yr-39%
D'Amore et al.	77	BEAM	71% CR	Short FU
Corradini et al.	62	Mito/Mel or BEAM	66% CR	12yr-34%
Rodriguez et al.	13	BEAM	65% CR	3yr-86%

Prospective OS 32-48%

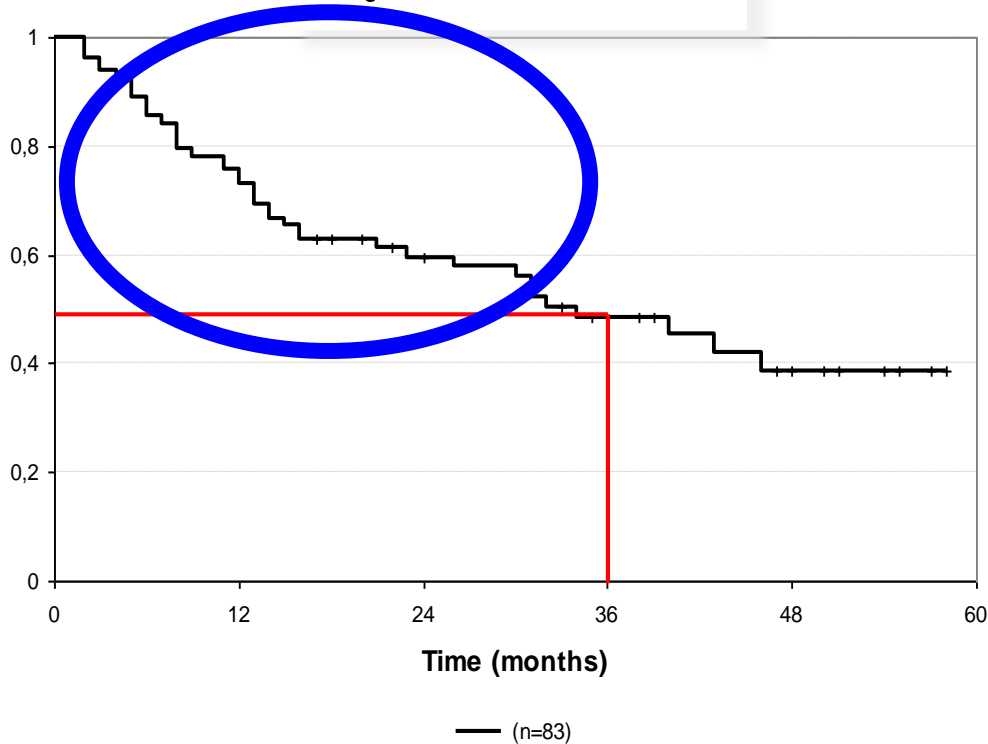
Autologous stem cell transplantation as first-line therapy in PTCL: Results of a prospective multicenter study

- N=83
- CHOP x 4-6
- IF CR/PR
 - mobilized with DexaBEAM or ESHAP
- TBI + CY-ASCT
- Median F/U: 33 months

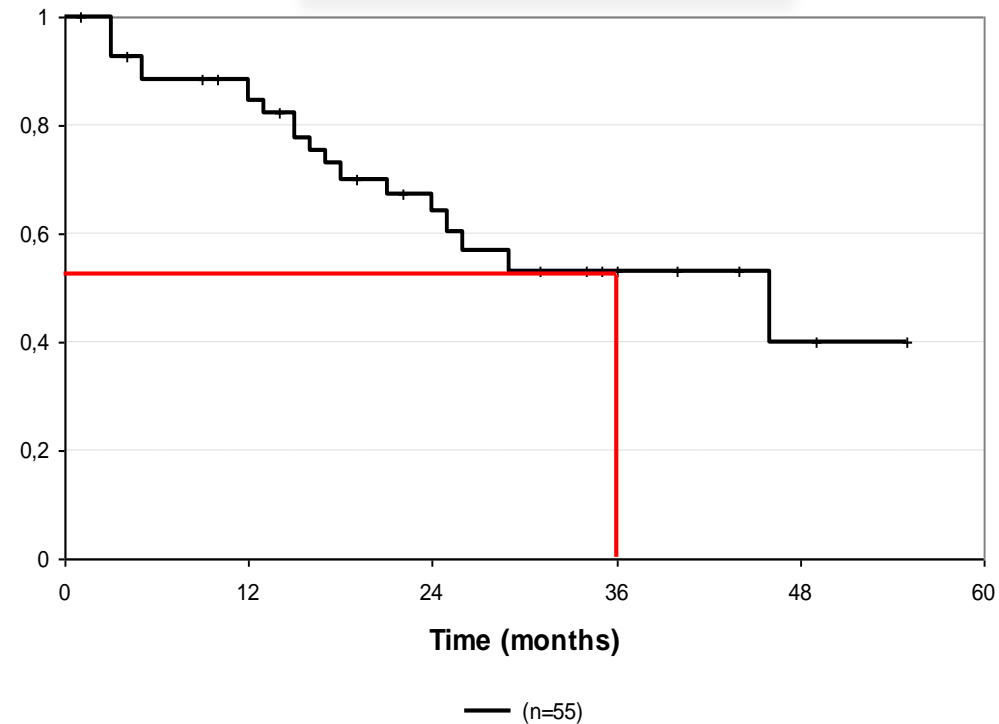
PTCL	39%	
AITL	33%	
ALCL	16%	
Med age	46.5	★ (30-65)
AA-IPI	L-LI	49%
	HI-H	51%
CR/CHOP	39%	
PR/CHOP	40%	
ASCT	66%	
POD	29%	(22% CHOP)

Autologous stem cell transplantation as first-line therapy in PTCL: Survival

3-year OS: 48%



3-year DFS: 53%

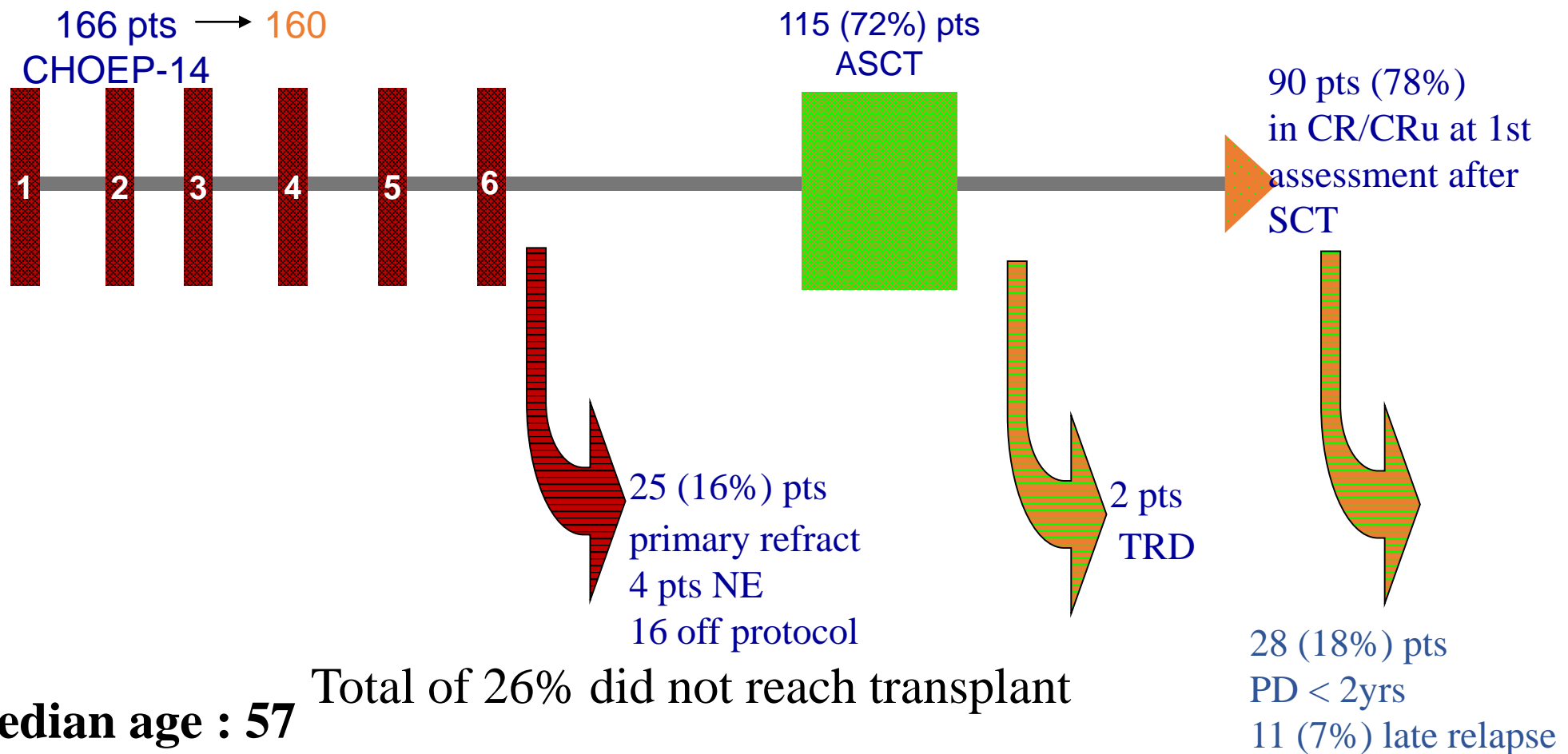


Outcome

- 39% could not be transplanted due to PD
- 27% progressed after transplant

Up-Front Autologous Stem-Cell Transplantation in Peripheral T-Cell Lymphoma: NLG-T-01

Francesco d'Amore, Thomas Relander, Grete F. Lauritzsen, Esa Jantunen, Hans Hagberg, Harald Anderson, Harald Holte, Anders Österborg, Mats Merup, Peter Brown, Outi Kuittinen, Martin Erlanson, Bjørn Østenstad, Unn-Merete Fagerli, Ole V. Gadeberg, Christer Sundström, Jan Delabie, Elisabeth Ralfkiaer, Martine Vornanen, and Helle E. Toldbod



Median age : 57 Total of 26% did not reach transplant

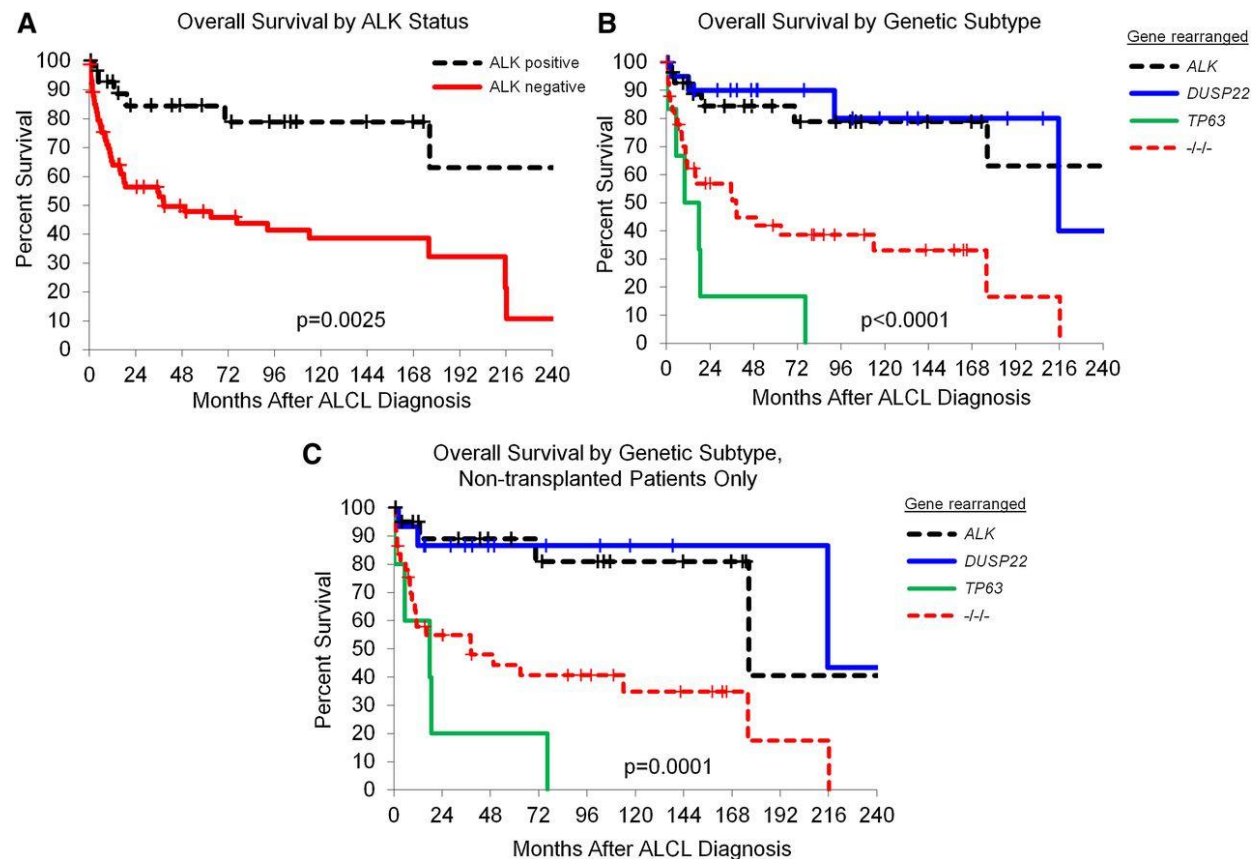
5-yr OS 51%, 5-yr PFS 44%

Best results in ALK – patients, PTCL-NOS 5-yr PFS 38%

Caveats in understanding role of ABMT

- Selection biases of series
- **Challenges and changes in pathologic classification**
- Non-uniform therapy
- **Molecular heterogeneity**
- **More effective treatment (s) ?**

Outcomes in patients with ALK-ALCL based on genetic subtype



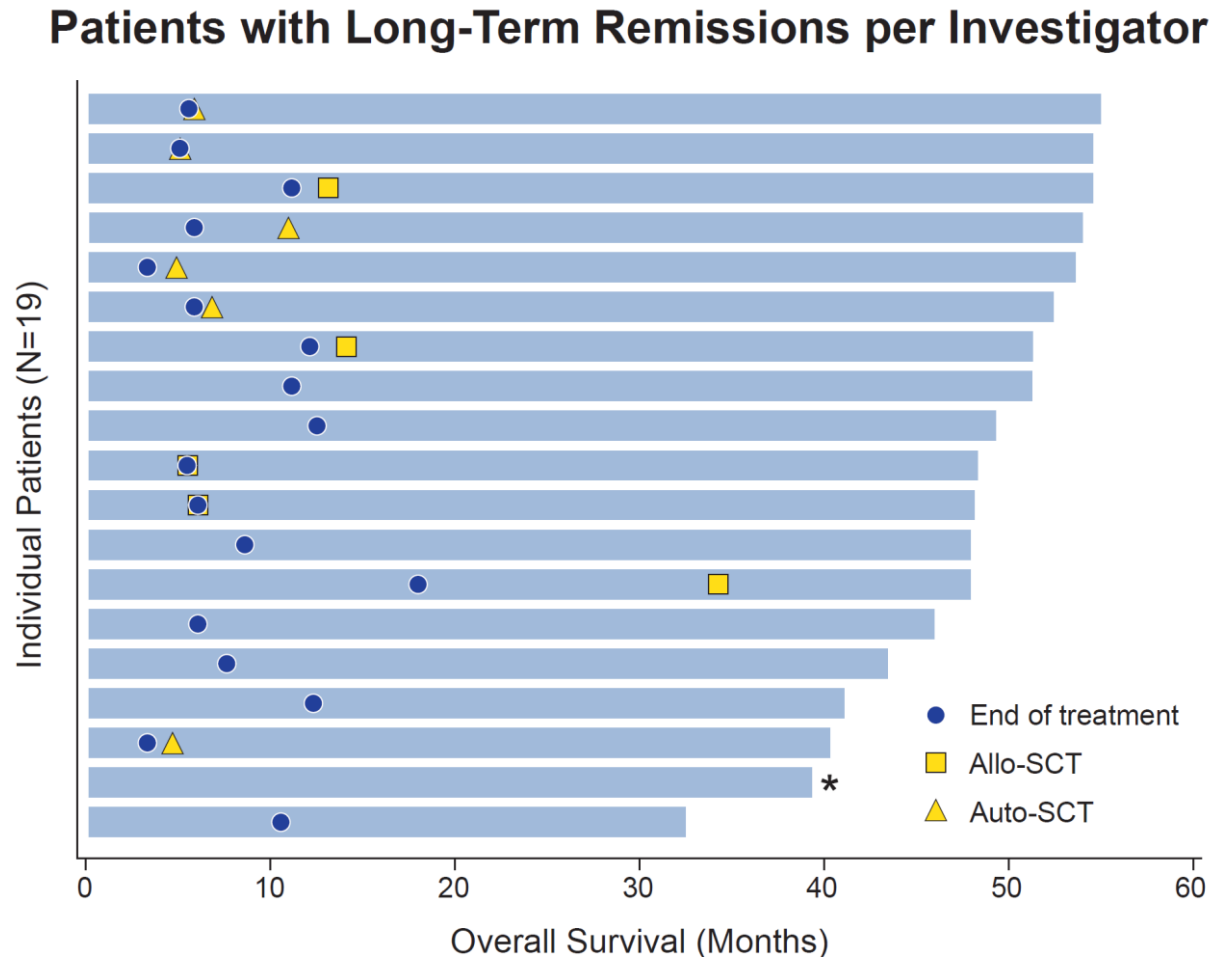
Edgardo R. Parrilla Castellar et al. *Blood* 2014;124:1473-1480

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BV in Relapsed/Refractory ALCL

Long-Term Follow-up

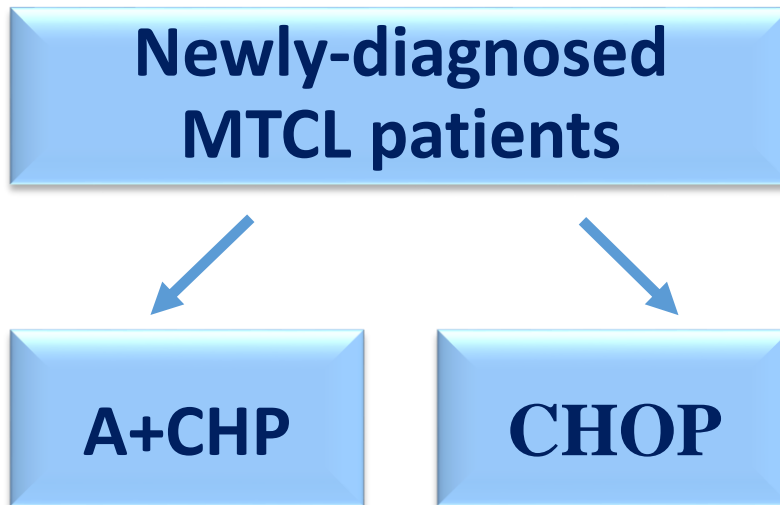


* Patient discontinued after 2 treatment cycles; end of treatment assessment not performed

- 19 patients remain on study, free of progression, and without the start of new anticancer therapy, other than SCT (n=11)

ECHELON-2 Phase 3 Study

- Randomized, double-blind, placebo-controlled study to evaluate the efficacy and safety of brentuximab vedotin and CHP (A+CHP) vs CHOP for the frontline treatment of CD30+ MTCL*
- Enrolling approximately 300 patients at 130 sites in 14 countries (ClinicalTrials.gov #NCT01777152)



Stratified by:

- **MTCL histology:**
ALK-positive sALCL, all others
- **IPI score:** 0–1, 2–3, 4–5

Autologous Transplantation

- **Prospective studies**
 - Moderately better PFS/OS than population based series with CHOP
 - Selection-
 - studies younger pts
 - frail pts less likely to go on a HDT study
- **Does not address the higher rates of non-responders in PTCL**
 - Primary refractoriness is still an unsolved problem in a substantial number of pts (25%-35%) on prospective trials
- **Does HDT-ASCT as consolidation improve results or is it just selecting for healthier people with chemosensitive disease?**
 - Randomized study?