



LINFOMI PRIMITIVI
CUTANEI DI DERIVAZIONE
T-LINFOCITARIA:
la multidisciplinarietà ottimizza il risultato

4 OTTOBRE 2021

MILANO Hilton Milan Hotel

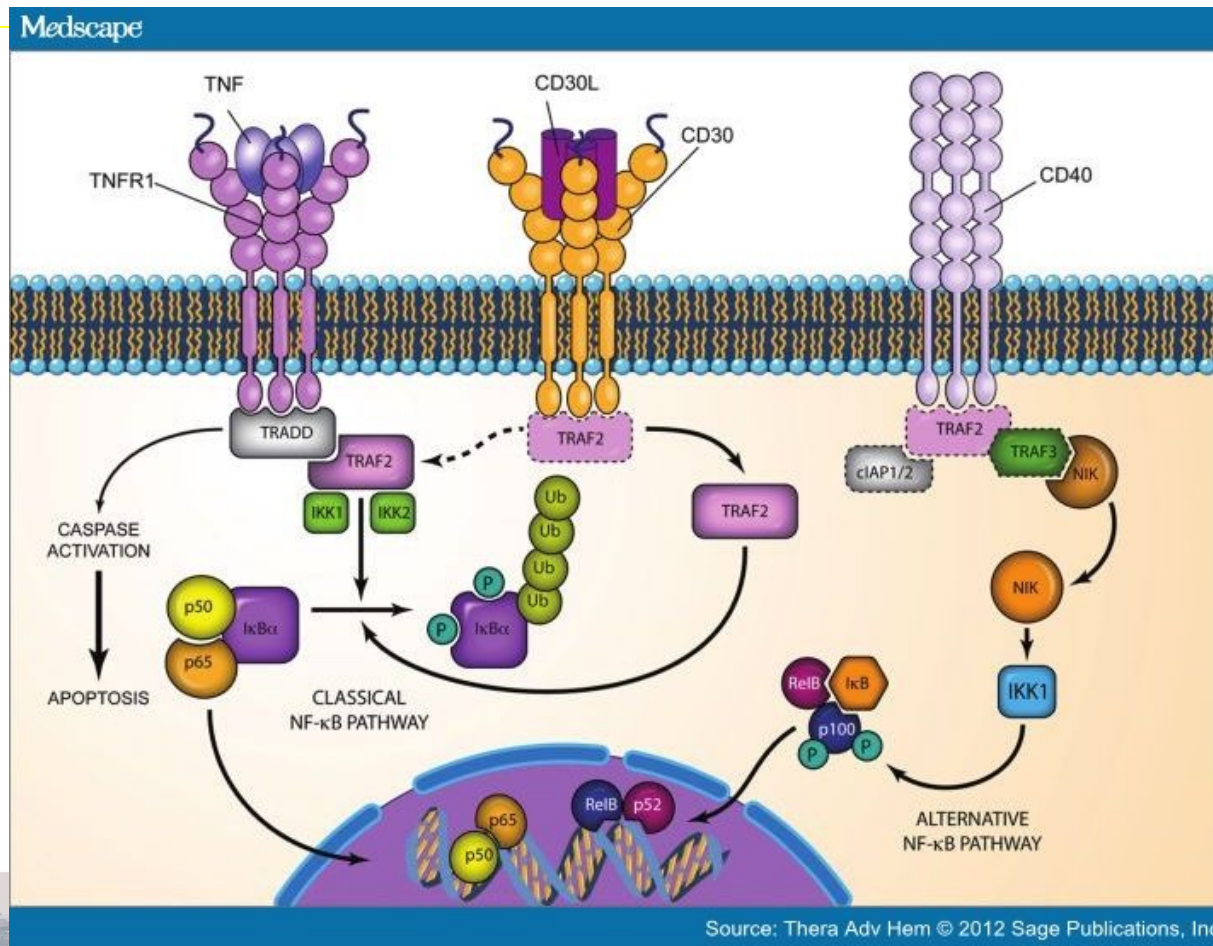
BRENTUXIMAB
VEDOTIN

- Pietro Quaglino, Dermatologic Clinic, University of Torino

BRENTUXIMAB VEDOTIN

- CD30 e meccanismo di azione

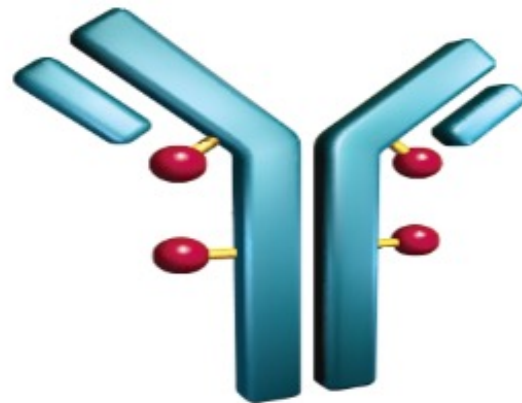
CD30, recettore delle citochine che appartiene alla superfamiglia del tumor necrosis factor receptor (TNFR)



BRENTUXIMAB

Brentuximab has three components:

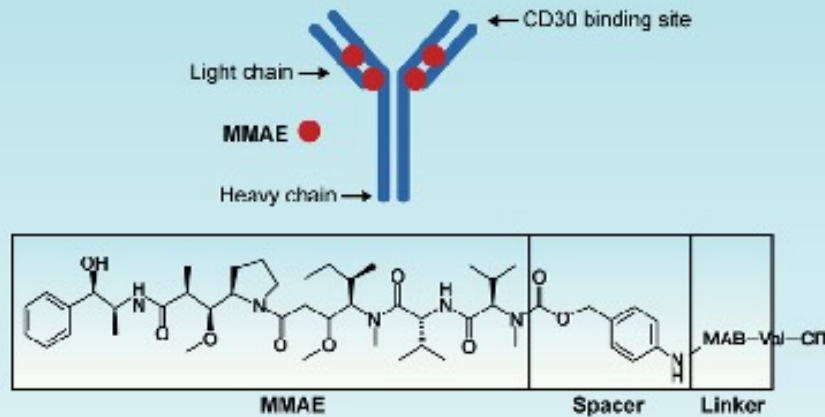
- **Antibody:** the antibody cAC10 specific for human CD30



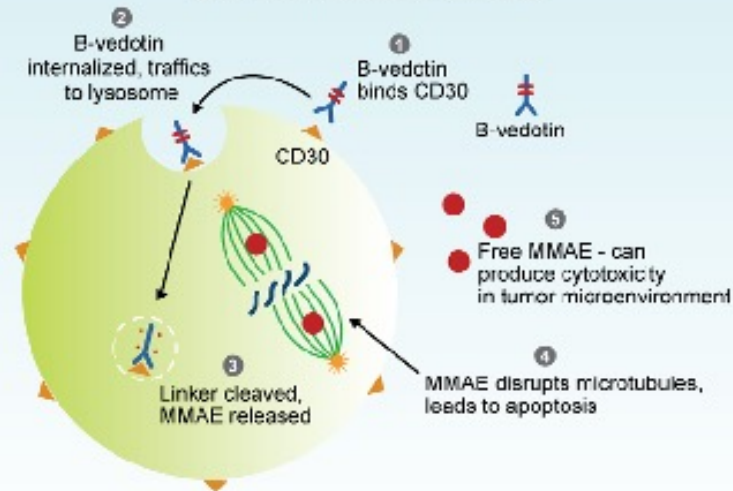
- **Cytotoxic agent:** the antimicrotubule agent monomethyl auristatin E (MMAE)

- **Linker:** a protease-cleavable linker that covalently attaches MMAE to Cac10.

Structure of Brentuximab Vedotin (B-Vedotin)



ADC Internalization Process



ADC = antibody-drug conjugate; MAB = monoclonal antibody; MMAE = monomethyl auristatin E (microtubule-disrupting agent)

Fig 1. How brentuximab vedotin (BV) works. (1) BV [anti-CD30 monoclonal antibody + monomethyl auristatin E (MMAE)] binds to CD30 receptor; (2) internalization by endocytosis of BV-CD30 receptor complex; (3) fusion with lysosomes; (4) MMAE release through lysosomal cysteine proteases; (5) MMAE disrupts the microtubule network, which leads to cell-cycle arrest and induces apoptosis.

Katz J, Janik JE, Younes A. Brentuximab vedotin (SGN-35). Clin Cancer Res 2011; 17:6428–36.

Mir SS, Richter BW, Duckett CS. Differential effects of CD30 activation in anaplastic large cell lymphoma and Hodgkin disease cells. Blood 2000; 96:4307–12

- diffusion of MMAE into the tumour microenvironment.
- Receptor binding of MMAE itself can trigger an apoptotic signal.

BRENTUXIMAB VEDOTIN

- CD30 e meccanismo di azione
- Risultati degli studi di fase II

Phase II Investigator-Initiated Study of Brentuximab Vedotin in Mycosis Fungoides and Sézary Syndrome With Variable CD30 Expression Level: A Multi-Institution Collaborative Project

Youn H. Kim, Mahkam Tavallaei, Uma Sundram, Kairin A. Salva, Gary S. Wood, Shufeng Li, Sima Rozati, Seema Nagpal, Michael Kruthen, Sunil Reddy, Richard T. Hoppe, Annie Nguyen-Lin, Wen-Kai Weng, Randall Armstrong, Melissa Pulitzer, Ranjana H. Advani, and Steven M. Horwitz

See accompanying articles on pages 3691 and 3759

Youn H. Kim, Mahkam Tavallaei, Uma Sundram, Shufeng Li, Sima Rozati,

A B S T R A C T

ORR:66%

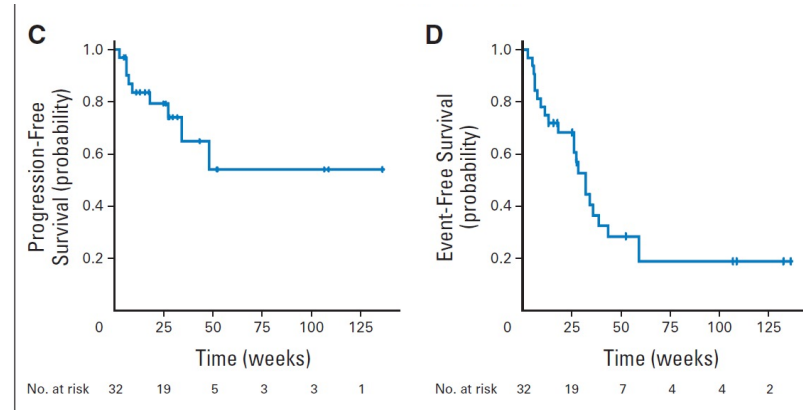


Table 1. Patient Baseline Demographics, Clinical Characteristics, and Clinical Response

| Characteristics | All Patients, N = 32, n (%) | Evaluable for Response, n = 30 | | | | | ORR,* n (%) |
|--|-----------------------------|--------------------------------|------------|------------|------------|------------|---------------|
| | | CR | PR | SD | PD | NE | |
| Sex | | | | | | | |
| Male | 19 (59) | 0 | 13 | 1 | 4 | 1 | 13 of 18 (72) |
| Female | 13 (41) | 1 | 7 | 3 | 1 | 1 | 8 of 12 (67) |
| Age, years, median (range) | 62 (20-87) | 78 | 60 (38-87) | 60 (20-82) | 64 (57-77) | 60 (50-70) | |
| Clinical stage | | | | | | | |
| All | 32 (100) | 1 | 20 | 4 | 5 | 2 | 21 of 30 (70) |
| IB | 4 (13) | 0 | 3 | 1 | 0 | 0 | 3 of 4 (75) |
| IIB | 18 (56) | 0 | 14 | 2 | 2 | 0 | 14 of 18 (78) |
| IV/SS† | 10 (31) | 1 | 3 | 1 | 3 | 2 | 4 of 8 (50) |
| Adverse prognostic factors | | | | | | | |
| LCT or FMF | 29 (90) | 1 | 19 | 3 | 5 | 1 | 20 of 28 (71) |
| LCT | 16 (50) | 1 | 9 | 2 | 3 | 1 | 10 of 15 (67) |
| FMF | 8 (25) | 0 | 7 | 1 | 0 | 0 | 7 of 8 (88) |
| LCT + FMF | 5 (16) | 0 | 3 | 0 | 2 | 0 | 3 of 5 (60) |
| No. of prior systemic therapies | | | | | | | |
| < 3 | 15 (47) | 0 | 8 | 2 | 4 | 1 | 8 of 14 (57) |
| ≥ 3 | 17 (53) | 1 | 12 | 2 | 1 | 1 | 13 of 16 (81) |
| CD30 grouping at screening | | | | | | | |
| A (< 10%) | 14 (44) | 0 | 7 | 4 | 2 | 1 | 7 of 13 (54) |
| B (10% to 50%) | 14 (44) | 0 | 11 | 0 | 3 | 0 | 11 of 14 (79) |
| C (> 50%) | 4 (13) | 1 | 2 | 0 | 0 | 1 | 3 of 3 (100) |

Abbreviations: CR, complete response; FMF, folliculotropic mycosis fungoides; LCT, large-cell transformation; NE, not evaluable; ORR, overall response rate; PD, progressive disease; PR, partial response; SD, stable disease; SS, Sézary syndrome.
 *Objective clinical response was observed in 21 (70%) of the 30 efficacy-evaluable patients
 †Of 10 stage IV patients, three patients had SS with one CR, one PR, and one PD; one patient was stage IVB who had PR.

Results of a Phase II Trial of Brentuximab Vedotin for CD30⁺ Cutaneous T-Cell Lymphoma and Lymphomatoid Papulosis

Maddikeri Davis, Michael T. Trethfaff, Pamela Ganger, Andrea L. Csis, Dawnen Sui, and Rukhshandra Talpur
See accompanying articles on pages 3691 and 3750

ABSTRACT

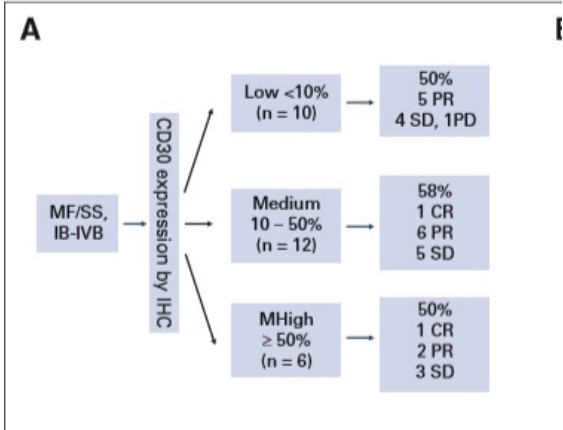
All authors: The University of Texas MD Anderson Cancer Center, Houston, TX.
Submitted October 16, 2014; accepted February 11, 2015.
Supported by Seattle Genetics, National Cancer Institute (NCI) MD Anderson Cancer Center Core Grant No. CA16670-01, NCI Grant No. R01-CA18611, National Institutes of Health and Manufacturing and Core Diagnostics Grant No. CA16670-01.

Purpose Brentuximab vedotin, a monoclonal antibody (cAC10) conjugated to monomethyl auristatin E, targets CD30⁺ receptors. This phase II open-label trial was conducted to evaluate safety and efficacy in CD30⁺ cutaneous T-cell lymphomas.
Patients and Methods Forty-eight patients with CD30⁺ lymphoproliferative disorders or mycosis fungoides (MF) received an infusion of 1.8 mg/kg every 21 days.

Table 2. Response in Evaluable Patients

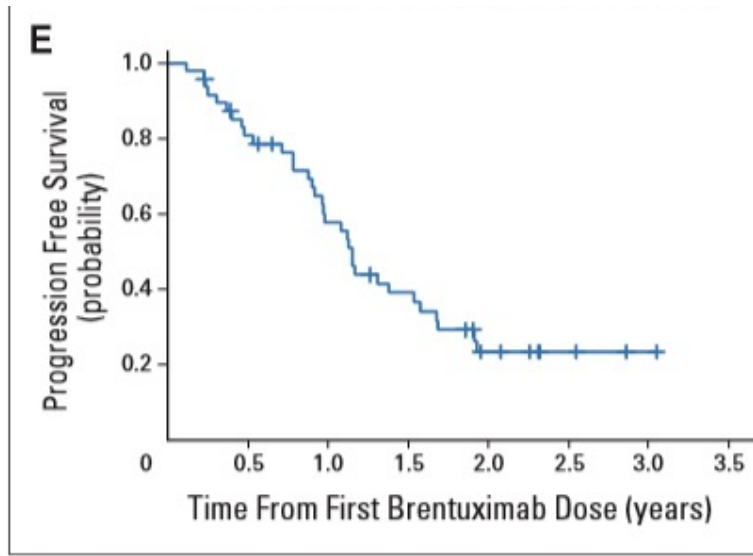
| Diagnosis | Total No. of Patients (N = 48) | Response | | Secondary Response (No.) |
|--------------|--------------------------------|--------------------|-----|--------------------------|
| | | No. | % | |
| All patients | 48 | 35 | 73 | |
| MF | 28 | 13 PR, 2 CR | 54 | |
| LyP | 9 | 5 CR, 4 PR | 100 | |
| pc-ALCL | 2 | 2 CR | 100 | |
| LyP/MF | 7 | 6 LyP CR, 1 LyP PR | 100 | 6 MF PR, 1 MF SD |
| pc-ALCL/LyP | 1 | CR | 100 | 1 LyP PD |
| pc-ALCL/MF | 1 | CR | 100 | 1 MF PR |

Abbreviations: ALCL, anaplastic large-cell lymphoma; CR, complete response; LyP, lymphomatoid papulosis; MF, mycosis fungoides; pc, primary cutaneous; PD, progressive disease; PR, partial response; SD, stable disease.



Progression-free survival was 1.1 year (95% CI, 0.9 to 1.4 years;

LINFOMI PRIMITIVI CU



TIMIZZA IL RISULTATO

4 OTTOBRE 2021 - MILANO

BRENTUXIMAB VEDOTIN

- CD30 e meccanismo di azione
- Risultati degli studi di fase II
- Lo studio ALCANZA

Brentuximab Vedotin Demonstrates Significantly Superior Clinical Outcomes in Patients With CD30-Expressing Cutaneous T-Cell Lymphoma Versus Physician's Choice (Methotrexate or Bexarotene): the Phase 3 ALCANZA study

Youn H. Kim,¹ Sean Whittaker,² Steven Horwitz,³ Madeleine Duvic,⁴ Reinhard Dummer,⁵ Julia Scarisbrick,⁶ Pietro Quaglino,⁷ Pier Luigi Zinzani,⁸ Pascal Wolter,⁹ Yinghui Wang,¹⁰ Maria Corinna Palanca-Wessels,¹⁰ Erin Zagadailov,¹¹ William L. Trepicchio,¹¹ Yi Liu,¹¹ Meredith Little,¹¹ H. Miles Prince¹²

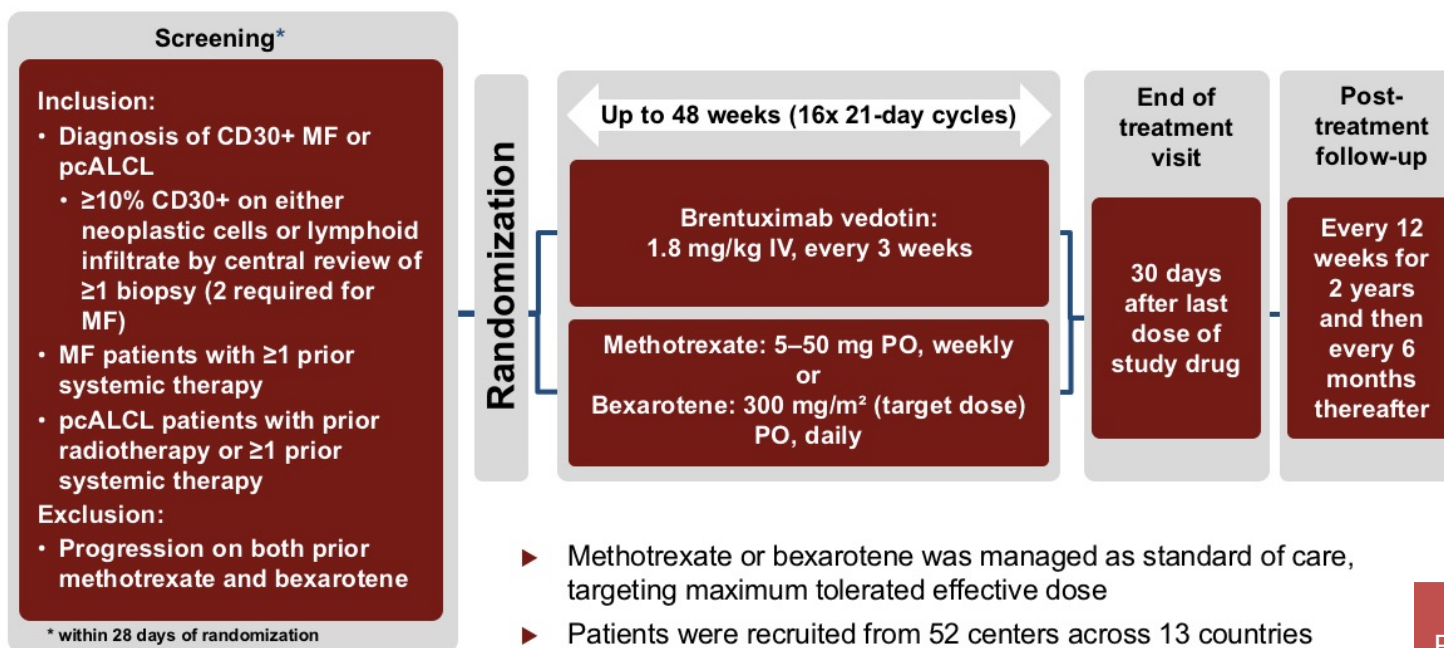
¹Stanford Cancer Institute, Stanford, California, USA; ²Guy's and St Thomas' NHS Foundation Trust, London, UK; ³Memorial Sloan Kettering Cancer Center, New York, USA; ⁴The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ⁵University Hospital Zürich, Zurich, Switzerland; ⁶University Hospital Birmingham, Birmingham, UK; ⁷University of Turin, Turin, Italy; ⁸Institute of Hematology "Seragnoli" University of Bologna, Bologna Italy; ⁹University Hospitals Leuven, Leuven, Belgium; ¹⁰Seattle Genetics, Inc., Bothell, WA, USA; ¹¹Millennium Pharmaceuticals Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited, Cambridge, MA, USA; ¹²The University of Melbourne, Victoria, Australia

LANCET 2017

LINFOMI PRIMITIVI CUTANEI DI DERIVAZIONE T-LINFOCITARIA: LA MULTIDISCIPLINARITÀ OTTIMIZZA IL RISULTATO

4 OTTOBRE 2021 - MILANO

ALCANZA: a randomized, open-label, phase 3 trial of brentuximab vedotin vs physician's choice (methotrexate or bexarotene) in patients with CD30+ CTCL



IV, intravenously; PO, orally

AIFA
RIMBORSABILITA'
: CTCL CD30+
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ALCANZA study endpoints

- **Primary endpoint**
 - ORR4 = rate of objective response lasting ≥ 4 months
 - Independent review of global response of all compartments using consensus criteria (mSWAT for skin evaluation, radiographic assessment, and circulating Sézary cell assessment as appropriate)¹
 - Sample size calculation: 90% power to detect 30% improvement in ORR4
- **Key secondary endpoints**
 - CR rate
 - PFS
 - Symptom burden/PRO (measure of QoL using Skindex-29²)

mSWAT, modified severity weighted assessment tool; PRO, patient reported outcome; QoL, quality of life

1. Olsen EA, et al. J Clin Oncol 2011; 29(18):2598-607

2. Chren MM, et al. Arch Dermatol 1997;133:1433-40

Patient baseline characteristics: ITT population, N=128

| | Brentuximab vedotin (n=64) | Methotrexate or bexarotene (n=64) |
|---|-------------------------------|--------------------------------------|
| Median age, years (range) | 62 (22–83) | 59 (22–83) |
| Male gender, n (%) | 33 (52) | 37 (58) |
| ECOG performance status 0–1, n (%) | 61 (95) | 62 (97) |
| Median of average CD30 expression from multiple biopsies at baseline, % (range) | 33 (3–100) | 31 (5–100) |
| MF*, n (%) | 48 (75) | 49 (77) |
| Early (IA-IIA) | 15 (31) | 18 (37) |
| Advanced (IIB-IVB**) | 32 (67) | 30 (61) |
| pcALCL, n (%) | 16 (25) | 15 (23) |
| Skin only | 9 (56) | 11 (73) |
| Extracutaneous disease | 7 (44) | 4 (27) |
| Total number of prior therapies, median (range) | 4.0 (0–13) | 3.5 (1–15) |
| Number of prior systemic therapies, median (range) | 2.0 (0–11) | 2.0 (1–8) |

*One patient in each arm had incomplete staging data and are not included

**stage IVB MF, n=7 in brentuximab arm vs. n=0 in methotrexate/bexarotene arm

| Disease stage‡§ | | | |
|-----------------|-------------|-------------|-------------|
| IA-IIA | 15/48 (31%) | 18/49 (37%) | 33/97 (34%) |
| IIB | 19/48 (40%) | 19/49 (39%) | 38/97 (39%) |
| IIIA-IIIB | 4/48 (8%) | 2/49 (4%) | 6/97 (6%) |
| IVA1 | 0 | 1/49 (2%) | 1/97 (1%) |
| IVA2 | 2/48 (4%) | 8/49 (16%) | 10/97 (10%) |
| IVB | 7/48 (15%) | 0 | 7/97 (7%) |
| pcALCL | 16 (25%) | 15 (23%) | 31 (24%) |
| Disease stage‡ | | | |
| Skin | | | |
| T ₁ | 1/16 (6%) | 4/15 (27%) | 5/31 (16%) |
| T ₂ | 3/16 (19%) | 5/15 (33%) | 8/31 (26%) |
| T ₃ | 12/16 (75%) | 6/15 (40%) | 18/31 (58%) |
| Node | | | |
| N ₀ | 10/16 (63%) | 11/15 (73%) | 21/31 (68%) |
| N ₁ | 2/16 (13%) | 1/15 (7%) | 3/31 (10%) |
| N ₂ | 2/16 (13%) | 1/15 (7%) | 3/31 (10%) |
| N ₃ | 2/16 (13%) | 2/15 (13%) | 4/31 (13%) |
| Visceral | | | |
| M ₀ | 12/16 (75%) | 14/15 (93%) | 26/31 (84%) |
| M ₁ | 4/16 (25%) | 1/15 (7%) | 5/31 (16%) |



Primary and key secondary endpoint analyses (ITT population)

| Endpoint | Brentuximab vedotin N=64 | Physicians Choice N=64 | Difference Between Arms (95% CI) | Statistical Significance |
|---|-----------------------------|---------------------------|-------------------------------------|---|
| Primary endpoint | | | | |
| ORR4, n (%) | 36 (56.3%) | 8 (12.5%) | 43.8% (29.1, 58.4) | p<0.0001 |
| Key secondary endpoints | | | | |
| CR, n (%) | 10 (15.6%) | 1 (1.6%) | 14.1% (-4.0, 31.5) | p=0.0046 ^{adj} |
| Median PFS, months | 16.7 | 3.5 | | p<0.0001 ^{adj} HR=0.270 (95% CI: 0.169, 0.430) |
| Mean maximum reduction in Skindex-29 symptom domain, points | -27.96 | -8.62 | -18.9 (-26.6, -11.2) | p<0.0001 ^{adj} |

Adj, adjusted p-value calculated from a weighted Holm's procedure; CI, confidence interval; HR, hazard ratio

ORR4 and response rates by disease type and extent

| | Brentuximab Vedotin | | | | Bexarotene or Methotrexate | | | |
|------------------------|--------------------------|-------------|------------|-----------|----------------------------|-------------|------------|-----------|
| | Total N = 64 n (%) | ORR4 (%) | ORR (%) | CR (%) | Total N = 64 n (%) | ORR4 (%) | ORR (%) | CR (%) |
| ITT population | 64 (100) | 56 | 67 | 16 | 64 (100) | 13 | 20 | 2 |
| ➔ MF | 48 (75) | 50 | 65 | 10 | 49 (77) | 10 | 16 | 0 |
| Stage | | | | | | | | |
| IA-IIA | 15 (31) | 40 | 53 | 7 | 18 (37) | 22 | 28 | 0 |
| IIB | 19 (40) | 63 | 68 | 16 | 19 (39) | 5 | 16 | 0 |
| IIIA-IIIB | 4 (8) | 50 | 75 | 0 | 2 (4) | 0 | 0 | 0 |
| IVA | 2 (4) | 100 | 100 | 50 | 9 (18) | 0 | 0 | 0 |
| IVB | 7 (15) | 29 | 57 | 0 | 0 | NA | NA | NA |
| ➔ pcALCL | 16 (25) | 75 | 75 | 31 | 15 (23) | 20 | 33 | 7 |
| Disease involvement | | | | | | | | |
| Skin-only | 9 (56) | 89 | 89 | 44 | 11 (73) | 27 | 45 | 9 |
| Extracutaneous disease | 7 (44) | 57 | 57 | 14 | 4 (27) | 0 | 0 | 0 |

NA, not applicable

Progression-free survival (ITT population)

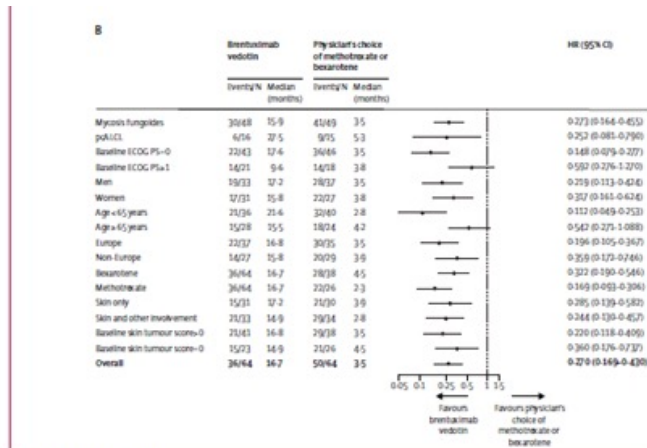
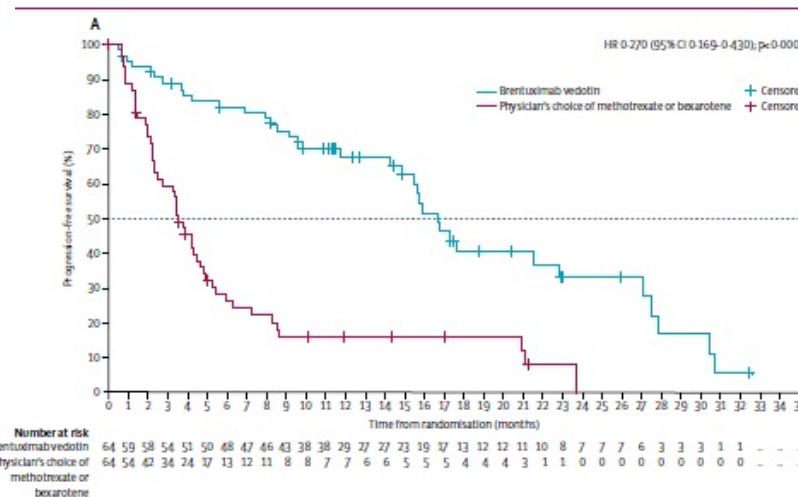


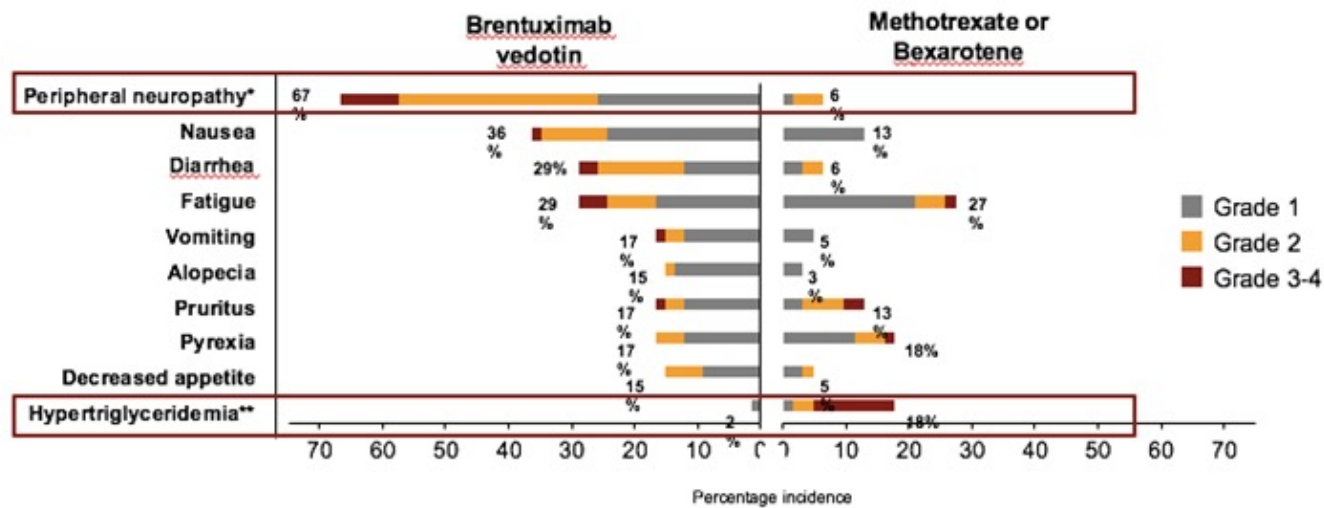
Figure 4 - Progression-free survival
 Progression-free survival was assessed in the intention-to-treat population overall (A) and in subgroups (B) by independent review using European Medicines Agency consenting guidelines, "which count all events despite missed visits or starting of new anticancer therapies before an event. Assessment using US Food and Drug Administration criteria is presented in the appendix (p. 14). pALCL=primary cutaneous anaplastic large-cell lymphoma. ECOG PS=Eastern Cooperative Oncology Group performance status.



Summary of adverse event (AE) impact - termination, SAEs, deaths

| Adverse event (AE), n (%) | Brentuximab vedotin (n=66) | Methotrexate or bexarotene (n=62) |
|--|---------------------------------------|--|
| Any AE | 63 (95) | 56 (90) |
| Any grade ≥ 3 AE | 27 (41) | 29 (47) |
| Any serious AE | 19 (29) | 18 (29) |
| AE resulting in discontinuation of study regimen* | 16 (24) | 5 (8) |
| On-study death (death ≤ 30 days from last dose)** | 4 (6) | 0 |

Commonly reported ($\geq 15\%$ of patients) treatment-emergent AEs



Nine patients discontinued assigned treatment due to peripheral neuropathy in the brentuximab vedotin group (none in the physician's choice group). At the last followup (median 22.9 months), 36 (82%) of 44 patients in the brentuximab vedotin group had improvement (≥ 1 grade) or resolution of peripheral neuropathy.

Median follow-up 45.9 months

Randomized phase 3 ALCANZA study of brentuximab vedotin vs physician's choice in cutaneous T-cell lymphoma: final data

Short title for the running head: Brentuximab vedotin vs physician's choice in CTCL

Steven M. Horwitz,¹ Julia J. Scarisbrick,² Reinhard Dummer,³ Sean Whittaker,⁴ Madeleine Duvic,⁵ Youn H. Kim,⁶ Pietro Quaglino,⁷ Pier Luigi Zinzani,⁸ Oliver Bechter,⁹ Herbert Eradat,¹⁰ Lauren Pinter-Brown,¹¹ Oleg E. Akilov,¹² Larisa Geskin,¹³ Jose A. Sanches,¹⁴ Pablo L. Ortiz-Romero,¹⁵ Michael Weichenthal,¹⁶ David C. Fisher,¹⁷ Jan Walewski,¹⁸ Judith Trotman,¹⁹ Kerry Taylor,²⁰ Stephane Dalle,²¹ Rudolf Stadler,²² Julie Lisano,²³ Veronica Bunn,²⁴ Meredith Little,²⁴ and H. Miles Prince²⁵

Table 1. Summary of efficacy (ITT population)

| | Brentuximab vedotin (n = 64) | Physician's choice (n = 64) | <i>P</i> |
|--|------------------------------------|-----------------------------------|----------|
| ORR4 per IRF, n (%) | 35 (54.7)* | 8 (12.5) | < .001 |
| Best response per IRF, n (%) | | | |
| ORR (CR + PR) | 42 (65.6) | 13 (20.3) | < .001 |
| CR | 11 (17.2) | 1 (1.6) | .002 |
| PR | 31 (48.4) | 12 (18.8) | |
| SD | 10 (15.6) | 18 (28.1) | |
| PD | 5 (7.8) | 22 (34.4) | |
| Median PFS per IRF, months (95% CI) [†] | 16.7 (15.4-21.6) | 3.5 (2.4-4.6) | |
| HR for PFS (95% CI) | 0.38 (0.25-0.58) | | < .001 |
| 3-year OS rate, % (95% CI) | 64.4 (50.7-75.2) | 61.9 (47.3-73.6) [‡] | |
| HR for OS (95% CI) | 0.75 (0.42-1.32) | | .310 |

Table 3. Patient response per IRF by baseline disease subtype and stage per investigator (ITT population)

| | Patients, n (%) | | | | | | | |
|---------------------------|---------------------------------|---------|---------|--------|--------------------------------|--------|--------|-------|
| | Brentuximab vedotin (n = 64) | | | | Physician's choice (n = 64) | | | |
| | Total | ORR4 | ORR | CR | Total | ORR4 | ORR | CR |
| MF | 48 (75) | 24 (50) | 31 (65) | 5 (10) | 49 (77) | 5 (10) | 8 (16) | 0 |
| Stage | | | | | | | | |
| IA-IIA | 15 (31) | 6 (40) | 8 (53) | 1 (7) | 18 (37) | 4 (22) | 5 (28) | 0 |
| IIB | 19 (40) | 12 (63) | 13 (68) | 3 (16) | 19 (39) | 1 (5) | 3 (16) | 0 |
| IIIA-IIIB | 4 (8) | 2 (50) | 3 (75) | 0 | 2 (4) | 0 | 0 | 0 |
| IVA | 2 (4) | 2 (100) | 2 (100) | 1 (50) | 9 (18) | 0 | 0 | 0 |
| IVB | 7 (15) | 2 (29) | 4 (57) | 0 | 0 | – | – | – |
| Unknown | 1 (2) | 0 | 1 (100) | 0 | 1 (2) | 0 | 0 | 0 |
| C-ALCL | 16 (25) | 11 (69) | 11 (69) | 6 (38) | 15 (23) | 3 (20) | 5 (33) | 1 (7) |
| Involvement | | | | | | | | |
| Skin only | 9 (56) | 8 (89) | 8 (89) | 4 (44) | 11 (73) | 3 (27) | 5 (45) | 1 (9) |
| Extracutaneous disease | 7 (44) | 3 (43) | 3 (43) | 2 (29) | 4 (27) | 0 | 0 | 0 |

One patient in each arm had incomplete staging data and are not included in the table: 1 patient in the brentuximab vedotin arm had a PR and 1 patient in the physician's choice arm had no response.

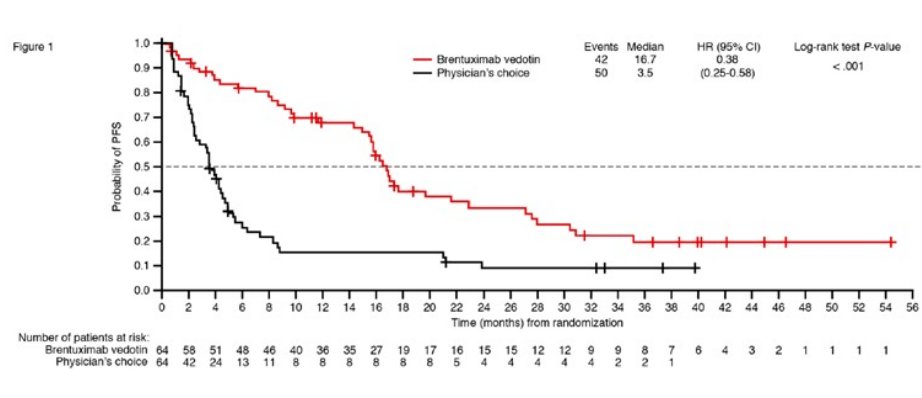
– indicate data were unavailable.

Abbreviations are explained in Table 1.

Table 2. PFS per IRF by number of cycles of brentuximab vedotin received (ITT population)

| | Number of treatment cycles | | |
|---------------------------------------|----------------------------|------------------|-------------------|
| | 1-5 (n = 19) | 6-12 (n = 17) | 13-16 (n = 28) |
| Median PFS, months | 3.8 | 15.4 | 21.6 |
| PFS for extended follow-up, %* | | | |
| 12 months | 27.3 | 58.8 | 96.0 |
| 18 months | 18.2 | 32.7 | 57.3 |
| 24 months | 18.2 | 26.1 | 46.9 |

*Kaplan-Meier estimates.



PFS

TtNT

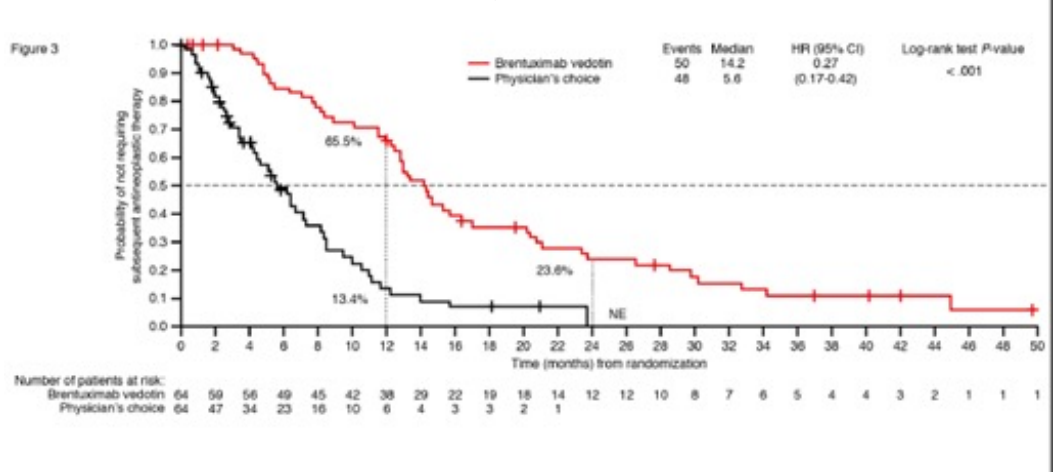


Table 4. Resolution, improvement, and duration of PN (SMQ) (safety population)

| Data cut-off | Brentuximab vedotin (n = 44) | | Physician's choice (n = 4) | |
|---|---------------------------------|--------------|-------------------------------|--------------|
| | May 31, 2016 | Sep 28, 2018 | May 31, 2016 | Sep 28, 2018 |
| Patients with resolution or improvement of PN events, n (%) | 36 (82) | 38 (86) | 1 (25) | 2 (50) |
| Patients with resolution of all PN events, n (%) | 22 (50) | 26 (59) | 1 (25) | 2 (50) |
| Median time to resolution, weeks | 27.0 | 33.0 | 2.0 | 10.5 |
| Patients with improvement in PN events by ≥ 1 grade, n (%) | 14 (32) | 12 (27) | 0 | 0 |
| Median time to improvement, weeks | 8.0 | 15.0 | — | — |
| Patients with ongoing PN events, n (%) | 22 (50) | 18 (41) | 3 (75) | 2 (50) |
| Maximum severity grade 1, n (%) | 17 (39) | 15 (34) | 1 (25) | 1 (25) |
| Maximum severity grade 2, n (%) | 5 (11) | 3 (7) | 2 (50) | 1 (25) |

PN indicates peripheral neuropathy.
— indicate data were unavailable.



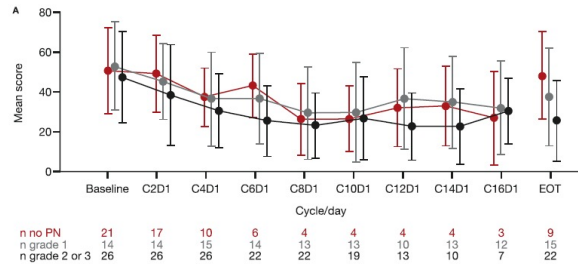
Original Research

Patient-reported quality of life in patients with relapsed/refractory cutaneous T-cell lymphoma: Results from the randomised phase III ALCANZA study



Reinhard Dummer^{a,*}, Henry M. Prince^b, Sean Whittaker^c, Steven M. Horwitz^d, Youn H. Kim^e, Julia Scarisbrick^f, Pietro Quaglino^g, Pier Luigi Zinzani^h, Pascal Wolterⁱ, Herbert Eradat^j, Lauren Pinter-Brown^k, Jose A. Sanchez^l, Pablo L. Ortiz-Romero^m, Oleg E. Akilovⁿ, Larisa Geskin^o, Auris Huen^p, Jan Walewski^q, Yinghui Wang^r, Julie Lisano^s, Akshara Richhariya^t, Joseph Feliciano^u, Yanyan Zhu^v, Veronica Bunn^w, Meredith Little^x, Erin Zagadailov^y, Mehul R. Dalal^z, Madeleine Duvic^p

R. Dummer et al. / European Journal of Cancer 133 (2020) 120–130



According to neuropathy: no worsening in Skindex-29

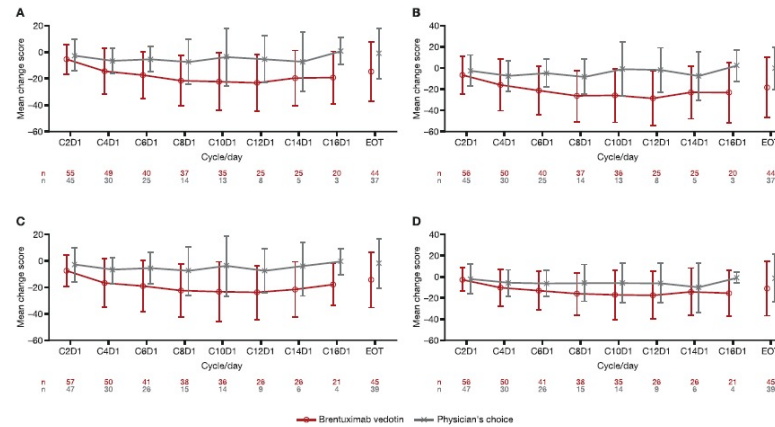


Fig. 1. Mean change from baseline in Skindex-29 total and domain scores in evaluable patients, including the key secondary end-point of Skindex-29 symptom domain score: (A) total score, (B) symptom domain, (C) emotions domain and (D) functioning domain. Bar represents mean \pm standard deviation. Higher scores indicate a higher impact of skin disease on quality of life. The psychometric validity of a sum score has not been established. The developer recommends calculating and reporting it largely to simplify the presentation of results. C, cycle; D, day; EOT, end of treatment.



Original Research

Response to brentuximab vedotin versus physician's choice by CD30 expression and large cell transformation status in patients with mycosis fungoides: An ALCANZA sub-analysis

Youn H. Kim ^{a,*}, H. Miles Prince ^b, Sean Whittaker ^c, Steven M. Horwitz ^d, Madeleine Davic ^e, Oliver Bechter ^f, Jose A. Sanches ^g, Rudolf Stadler ^h, Julia Scarisbrick ⁱ, Pietro Quaglino ^j, Pier Luigi Zinzani ^k, Pascal Wolter ^l, Herbert Eradat ^m, Lauren C. Pinter-Brown ⁿ, Pablo L. Ortiz-Romero ^o, Oleg E. Akilov ^p, Judith Trotman ^q, Kerry Taylor ^r, Michael Weichenthal ^s, Jan Walewski ^t, David Fisher ^u, Marise McNealey ^v, Alejandro A. Gru ^w, Lisa Brown ^{x,y}, M. Corinna Palanca-Wessels ^z, Julie Lisano ^{aa}, Matthew Onsum ^{ab}, Veronica Bunn ^{ac}, Meredith Little ^{ad}, William L. Trepicchio ^{ae}, Reinhard Dummer ^{af}

Table 2

Efficacy of brentuximab vedotin and PC by CD30 expression and LCT status.

| Treatment | CD30 _{min} < 10% (n = 43) | | CD30 _{min} ≥ 10% (n = 57) | |
|--|------------------------------------|-----------------------------|------------------------------------|-----------------------------|
| | Brentuximab vedotin (n = 22) | Physician's choice (n = 21) | Brentuximab vedotin (n = 28) | Physician's choice (n = 29) |
| ORR4, n (%) | 9 (40.9) | 2 (9.5) | 16 (57.1) | 3 (10.3) |
| Δ versus PC, % (95% CI) | 31.4 (2.8–58.1) | | 46.8 (20.6–67.0) | |
| Median PFS, months (95% CI) | 16.7 (8.6–27.0) | 2.3 (1.6–3.5) | 15.5 (9.8–22.8) | 3.9 (2.2–6.3) |
| HR (95% CI) | 0.189 (0.087–0.414) | | 0.340 (0.172–0.674) | |
| Treatment | LCT present (n = 34) | | LCT absent (n = 62) | |
| | Brentuximab vedotin (n = 17) | Physician's choice (n = 17) | Brentuximab vedotin (n = 31) | Physician's choice (n = 31) |
| ORR4 per IRF, n (%) | 11 (64.7) | 3 (17.6) | 12 (38.7) | 2 (6.5) |
| Median PFS, months (95% CI) | 15.5 (9.1–22.8) | 2.8 (1.4–7.3) | 16.1 (8.6–21.6) | 3.5 (2.2–4.3) |
| Median CD30 _{min} , % (range) | 30.0 (0–95.0) | 20.0 (0–95.0) | 5.0 (0–60.0) | 8.0 (0–50.0) |

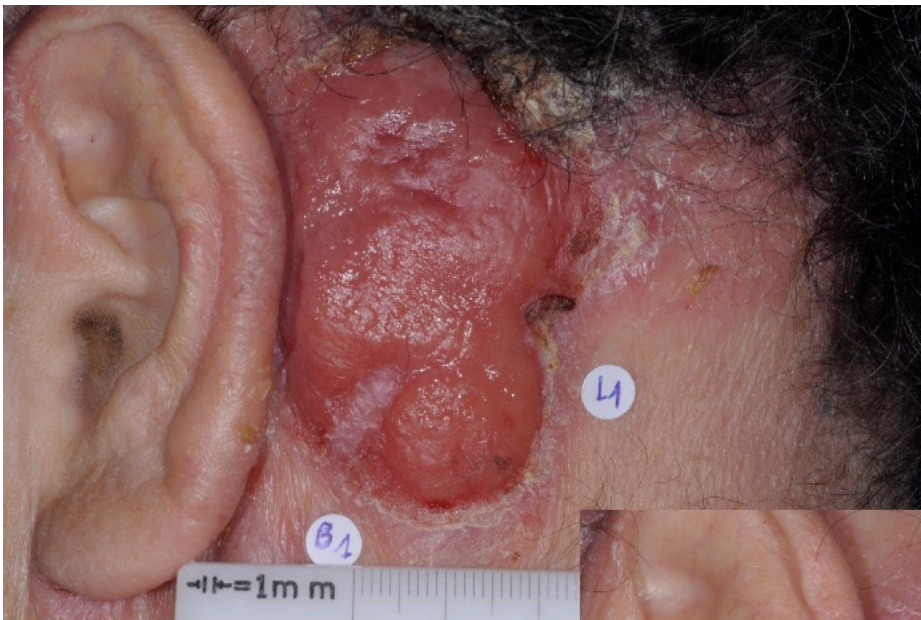
CD30_{min}, minimum CD30 levels; CI, confidence interval; HR, hazard ratio; IRF, independent review facility; LCT, large cell transformation; ORR4, objective response rate lasting ≥4 months; PC, physician's choice; PFS, progression-free survival.

A IL RISULTATO

4 OTTOBRE 2021 - MILANO

BRENTUXIMAB VEDOTIN

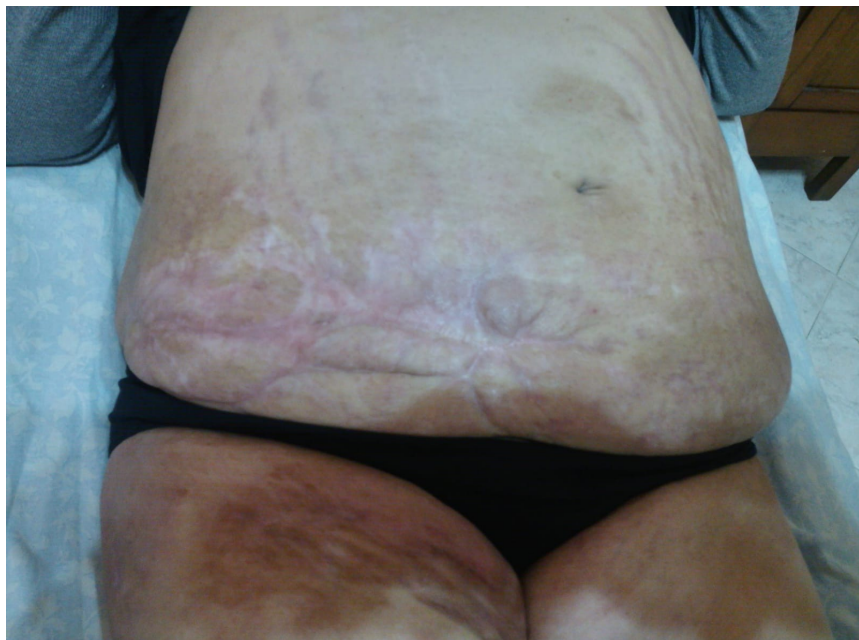
- CD30 e meccanismo di azione
- Risultati degli studi di fase II
- Lo studio ALCANZA
- Real-life data



LINFOMI PRIMITIVI CUTANEI DI DERIVAZIONE T-LINFOCITARIA: LA MULTIDISCIPLINARITÀ OTTIMIZZA IL RISULTATO

4 OTTOBRE 2021 - MILANO





LINFOMI PRIMITIVI CUTANEI DI DERIVAZIONE T-LINFOCITARIA: LA MULTIDISCIPLINARITÀ OTTIMIZZA IL RISULTATO

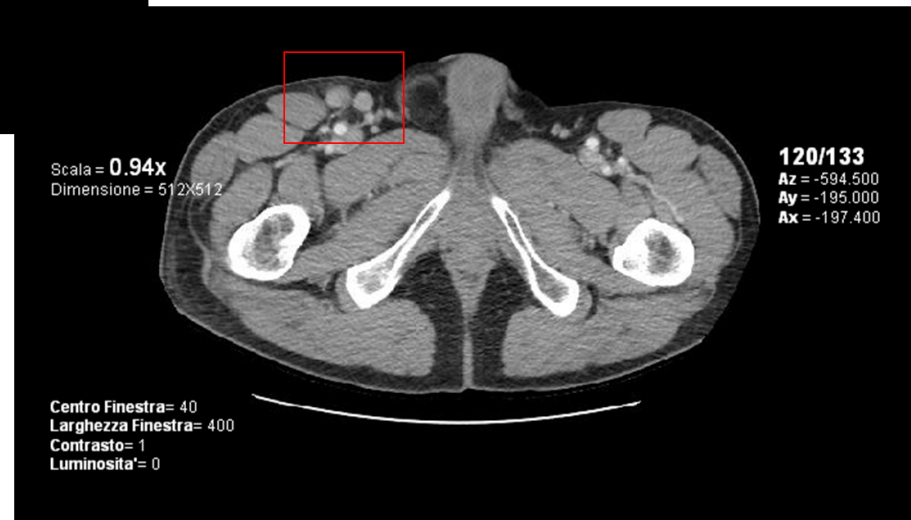
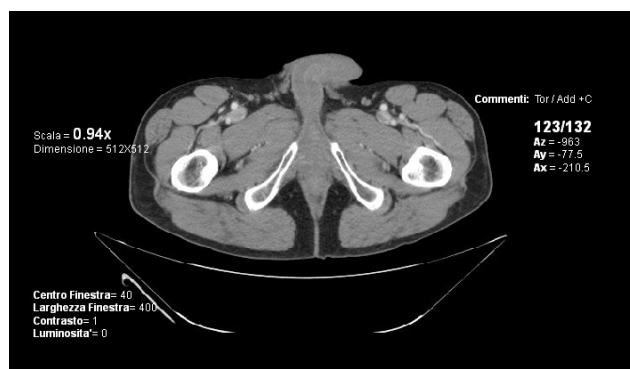
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NE T-LINFOCITARIA: LA MULTIDISCIPLINARITÀ OTTIMIZZA IL RISULTATO

4 OTTOBRE 2021 - MILANO

Remissione clinica completa cutanea e linfonodale



Rapid response of nodular CD30-positive mycosis fungoides to brentuximab vedotin



A patient diagnosed with mycosis fungoides presented with erythrodermic and scaly patches and plaques covering almost his entire body surface, with nodular lesions (up to 10 × 10 cm) fungating from the abdominal wall. Immunohistochemical analysis of the skin biopsy specimen showed CD30 expression in 50% of CD3/CD4-positive lymphoid cells. We treated the patient with four courses

lesions had completely disappeared and the other skin lesions had improved (bottom). CD30 positivity (defined as >10% of the lymphoid infiltrate) has varied from 10% to 63% in two reported series of patients at all stages of the disease (Duvic, 2011; Krathen *et al*, 2012) indicating that brentuximab vedotin is a potential new therapy for mycosis fungoides.

Multicentric EORTC retrospective study shows efficacy of brentuximab vedotin in patients who have mycosis fungoides and Sézary syndrome with variable CD30 positivity

E. Papadavid,¹ E. Kapniari,¹ V. Pappa,² V. Nikolaou,¹ T. Iliakis,² M. Dalamaga,³ C. Jonak,⁴ S. Porkert,⁴ S. Engelina,⁵ P. Quaglino,⁵ P.L. Ortiz-Romero,⁶ C. Vico,⁶ A. Cozzio,^{8,9} F. Dimitriou,^{8,9} R. Guiron,¹⁰ E. Guenova,^{11,12} E. Hodak,⁵ M. Bagot,^{13,14} and J. Scarisbrick,¹⁵

Table 1. Patients' demographics and clinical characteristics

| | |
|--|---------------|
| Age (years) | |
| Mean ± SD | 61.3 ± 12.4 |
| Sex (N, %) | |
| Male | 43/72 (59.7%) |
| Female | 29/72 (40.3%) |
| Country (N, %) | |
| Switzerland | 16/72 (22.2%) |
| UK | 15/72 (20.8%) |
| Greece | 10/72 (13.9%) |
| France | 10/72 (13.9%) |
| Austria | 6/72 (8.3%) |
| Spain | 5/72 (6.9%) |
| Italy | 4/72 (5.6%) |
| Israel | 6/72 (8.3%) |
| Disease Characteristics | |
| Disease Duration (Years) | |
| Median (IQR) | 4 (2-8) |
| CTCL type(N, %) | |
| SS | 15/72 (20.8%) |
| MF | 57/72 (79.2%) |
| CTCL stage at BV initiation(N, %) | |
| IB | 1/72 (1.4%) |
| IIB | 32/72 (44.4%) |
| IIIA | 1/72 (1.4%) |
| IIIB | 4/72 (5.6%) |
| IVA1 | 5/72 (7%) |
| IVA2 | 17/72 (23.6%) |

| | |
|--|----------------|
| IVB | 12/72 (16.6%) |
| B involvement (N, %) | |
| B0 | 54/72 (75%) |
| B1 | 3/72 (4.2%) |
| B2 | 15/72 (20.8%) |
| N involvement (N, %) | |
| N0 | 34/72 (47.2%) |
| N1 | 4/72 (5.6%) |
| N2 | 4/72 (5.6%) |
| N3 | 23/72 (31.9%) |
| NX | 7/72 (9.7%) |
| M Metastases (N, %) | |
| M0 | 62/72 (86.2%) |
| M1 | 10/72 (13.8%) |
| CD30 presence(N, %) | |
| ≤5 | 14/72 (19.4%) |
| 5-10 | 14/72 (19.4%) |
| >10 | 44/72 (61.2%) |
| LCT (N, %) | 49/68* (72.1%) |
| No of systemic previous treatments (N, %) | |
| <3 | 46/72 (63.9%) |
| ≥3 | 26/72 (36.1%) |
| No of previous treatment Median (IQR) | |
| | 2 (1-3) |

*N of patients with available data

Multicentric EORTC retrospective study shows efficacy of brentuximab vedotin in patients who have mycosis fungoides and Sézary syndrome with variable CD30 positivity

E. Papadavid,¹ E. Kapniari,¹ V. Pappa,² V. Nikolaou,¹ T. Iliakis,² M. Dalamaga,³ C. Jonak,⁴ S. Porkert,⁴ S. Engelina,⁵ P. Quaglino,⁵ P.L. Ortiz-Romero,⁶ C. Vico,⁷ A. Cozzio,^{8,9} F. Dimitriou,^{8,9} R. Guiron,¹⁰ E. Guenova,^{11,12} E. Hodak,⁵ M. Bagot,^{13,14} and J. Scarisbrick,¹⁵

Table 2 Response rates, durability results and overall survival of brentuximab vedotin in patients with mycosis fungoides/Sézary syndrome

| Variable | Value |
|---|-------------------------|
| Overall response lasting at least 4 months | 28/67 (42) |
| Overall response rate | 45/67 (67) |
| Complete response | 18/67 (27) |
| Partial response | 27/67 (40) |
| Stable disease | 9/67 (13) |
| Progression of disease | 13/67 (19) |
| Skin overall response rate | 47/65 ^a (72) |
| Blood overall response rate | 4/10 ^a (40) |
| Time to response (weeks) | |
| Median (IQR) | 8 (5.5–14) |
| Mean (SD) | 10.8 (7.9) |
| Response duration (months) | |
| Median (IQR) | 9 (3.4–14) |
| Mean (SD) | 10.05 (7) |
| Response duration in patients with complete response (months) | |
| Median (IQR) | 13.5 (6.4–21.8) |
| Mean (SD) | 14.3 (8.6) |
| Response duration in patients with partial response (months) | |
| Median (IQR) | 9 (3.2–12.5) |
| Mean (SD) | 8.6 (5.2) |
| Progression-free survival | |
| Median (IQR) | 7 (2–12) |
| Mean (SD) | 8.02 (6.9) |
| Time to next treatment (days) | |
| Median (IQR) | 30 (6–157.5) |
| Mean (SD) | 127.6 (204.7) |

Data are n/N(%) unless otherwise indicated. ^an of patients with available data.

LINFOMI PRIMITIVI CUTANEI DI DERIVAZIONE

IL RISULTATO

RE 2021 - MILANO

Brentuximab Vedotin for Relapsed or Refractory Sézary Syndrome

Daniel J. Lewis, MD; Paul L. Haun, MD; Sara S. Samimi, MD; Carmela C. Vittorio, MD; Jennifer Villaseñor-Park, MD, PhD; Stefan K. Barta, MD; Daniel J. Landsburg, MD; Jakub Svoboda, MD; Sunita D. Nasta, MD; Stephen J. Schuster, MD; Alain H. Rook, MD; Ellen J. Kim, MD

IMPORTANCE Treatment options for Sézary syndrome (SS) are limited and associated with low response rates. Brentuximab vedotin is a CD30-directed antibody-drug conjugate approved for refractory CD30-positive cutaneous T-cell lymphoma. However, limited data exist on its efficacy in SS, including in the pivotal phase 3 ALCANZA (A Phase 3 Trial of Brentuximab Vedotin (SGN-35) Versus Physician's Choice [Methotrexate or Bexarotene] in Participants With CD30-Positive Cutaneous T-Cell Lymphoma) trial.

OBJECTIVE To assess the preliminary efficacy and tolerability of brentuximab vedotin for SS.

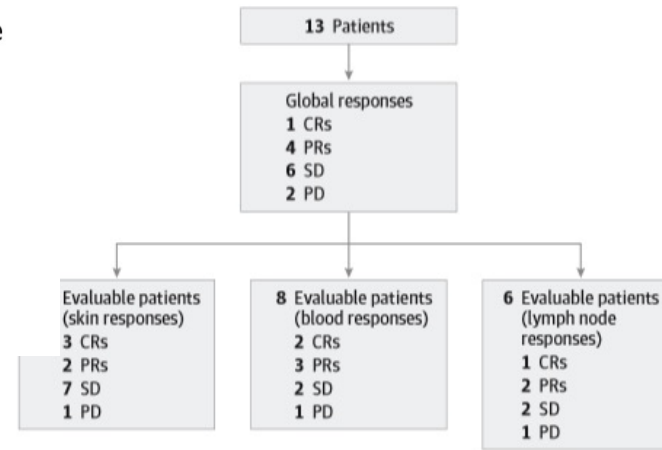
Key Points

Questions What is the global response rate of brentuximab vedotin in Sézary syndrome (SS), and how does it compare with other therapies used for SS?

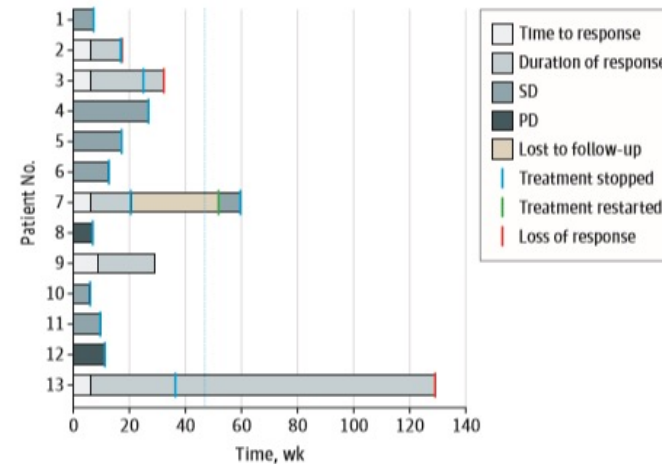
Findings In this case series, 5 of 13 patients with SS (38%) achieved a global response, including 1 complete response. Response rates by disease compartment were 38% in the skin, 63% in the blood, and 50% in the lymph nodes.

Meaning Brentuximab vedotin is associated with some efficacy in SS.

Global and disease compartment responses to brentuximab vedotin



B Responses in all patients and response duration



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Article type : Research Letter

Corresponding author mail id: julia.scarisbrick@uhb.nhs.uk

Brentuximab a novel antibody therapy: Real-World Use Confirms Efficacy and Tolerability for CD30 positive cutaneous lymphoma

S. Engelina, M. Saggu, J. Yoo, F. Shah, A. Stevens, C. Irwin, S. Chaganti and J. J. Scarisbrick.
University Hospital Birmingham (UHB), Birmingham, UK.

| Patient | Gender | Diagnosis | Age at diagnosis | Stage prior to BV | No. of BV cycles | No. of weeks | CD30% | Response | No. of previous systemics |
|---------|--------|-----------|------------------|-------------------|------------------|--------------|-------|----------|---------------------------|
| 1 | F | MF | 57 | IIB | 4 | 12 | 10 | SD | 3 |
| 2 | M | MF | 60 | IIB | 9 | 27 | 30 | CR | 3 |
| 3 | M | MF | 60 | IIB | 13 | 39 | 27 | PR | 3 |
| 4 | F | MF | 57 | IIIB | 7 | 21 | 10 | CR | 4 |
| 5 | M | MF | 76 | IIIB | 16 | 48 | 100 | CR | 3 |
| 6 | M | MF | 47 | IVA2 | 5 | 15 | 5 | PR | 4 |
| 7 | M | MF | 43 | IVA2 | 9 | 27 | 10 | PD | 4 |
| 8 | M | MF | 48 | IVA2 | 10 | 30 | 100 | CR | 2 |
| 9 | F | MF | 50 | IVA2 | 16 | 48 | 1.5 | PR | 1 |
| 10 | M | pcALCL | 59 | T3N0M1 | 4 | 12 | 100 | PD | 2 |
| 11 | M | pcALCL | 39 | T2CN1M0 | 6 | 18 | 100 | CR | 1 |
| 12 | M | pcALCL | 41 | T3AN2M0 | 8 | 24 | 100 | CR | 2 |

pcALCL: primary anaplastic large-cell lymphoma.MF: mycosis fungoides. CR: complete response. PR: partial response. SD: stable disease. PD: disease progression.

LINFOMI PRIMITIVI CUTANEI DI DERIVAZIONE T-LINFOCITARIA: LA MULTIDISCIPLINARITÀ OTTIMIZZA IL RISULTATO

4 OTTOBRE 2021 - MILANO

Correspondence

Complete remission with brentuximab vedotin in a case of primary cutaneous gamma-delta T-cell lymphoma relapsed after allogeneic stem cell transplantation

Dear Editor,

Primary cutaneous gamma-delta T-cell lymphoma (GD-TCL) is a rare and aggressive entity. Clinically, it has a variable presentation more frequently as rapidly growing erythematous, ulcerated plaques, and nodules; less frequently, yet typically, with initial subcutaneous involvement, resembling subcutaneous panniculitis, such as T-cell lymphoma (SPLTCL), progressing

CD30 immunotoxin) was started while considering a new allo-transplantation procedure. BV was administered (1.8 mg/kg i.v. q21) for 16 cycles. A clinical CR was obtained already after eight cycles, with non-remarkable side effects, and chimerism assay showed 100% of donor cells. The patient is currently still disease-free.

At last clinical follow-up, after 36 months from last BV cycle, the patient is still in complete remission.

The 2016 update of the WHO classification for myeloid and lymphoid neoplasms recognizes primary cutaneous GD-



Figure 1 Clinical photos showing details of lesions on both legs at the time of relapse. Active lesions presented as multiple, painful subcutaneous plaques and nodules with tendency to ulceration

International Journal of Dermatology 2021, **60**, 778–780

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Complete remission with brentuximab vedotin in a case of primary cutaneous gamma-delta T-cell lymphoma relapsed after allogeneic stem cell transplantation.

Lastrucci I, Grandi V, Gozzini A, Vannucchi M, Kovalchuk S, Santucci M, Pimpinelli N. *Int J Dermatol.* 2021 Jun;60(6):778-780.

Brentuximab vedotin in CD30⁺ cutaneous lymphoma: How do we treat, how shall we treat? A review of the literature

R. Stranzenbach¹, E. Dippel,² M. Schlaak³ and R. Stadler⁴

¹Department of Dermatology, Venerology, Allergology and Phlebology, Johannes Wesling Medical Centre, University Hospital of Ruhr-University Bochum, Minden, Germany

²Department of Dermatology, Klinikum Ludwigshafen, Skin Cancer Centre Rheinpfalz, Ludwigshafen, Germany

³Department of Dermatology and Venerology, University of Cologne, Cologne, Germany

Linked Comment: Scarisbrick. *Br J Dermatol* 2017; 177:1474–1475.

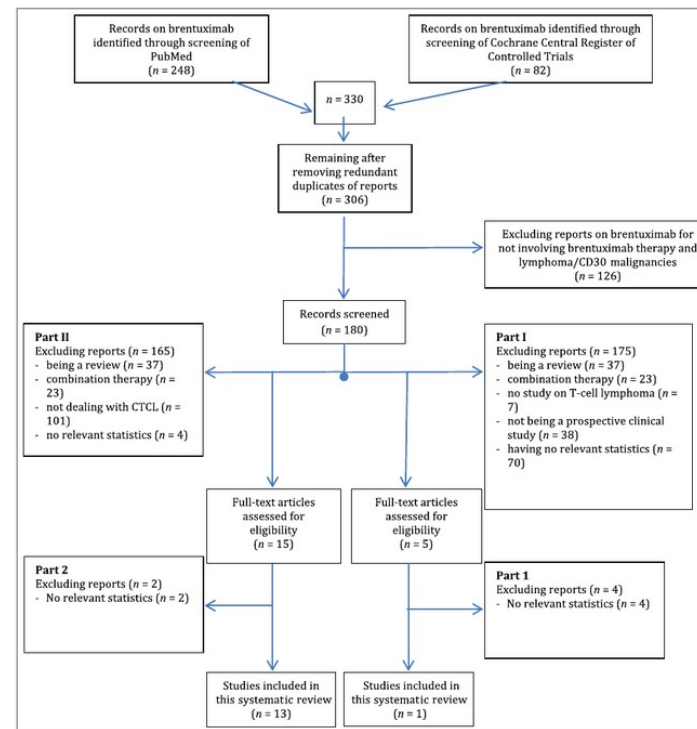
Table 2 Overview of the pooled data

| | |
|--------------------|-----|
| Number of studies | 13 |
| Number of patients | 149 |
| CR | 37 |
| PR | 75 |
| ORR (%) | 75 |

CR, complete response; PR, partial response; ORR, overall response rate.

Table 3 Alternative treatment regimens

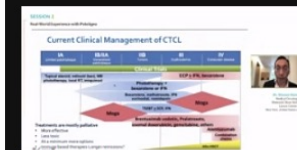
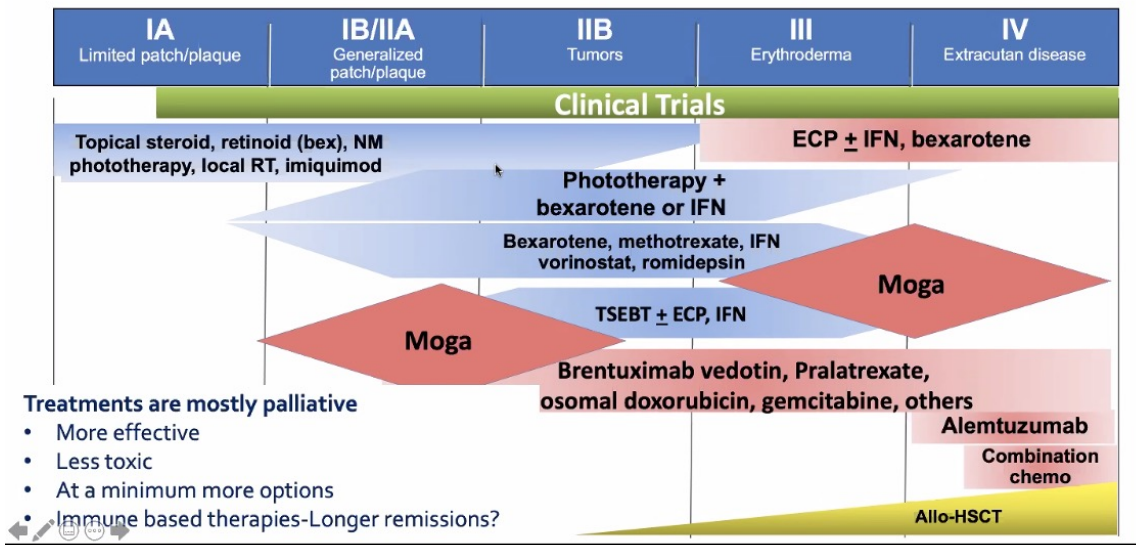
| Dose (mg kg ⁻¹) | Interval |
|----------------------------------|---|
| 1·2 | Every 3 weeks |
| 1·2 | Start every 3 weeks Extension of the intervals depending on the response |
| 1·8 followed by reduction to 1·2 | Start every 3 weeks Extension of the intervals depending on response |



BRENTUXIMAB VEDOTIN


- CD30 e meccanismo di azione
- Risultati degli studi di fase II
- Lo studio ALCANZA
- Real-life data
- Positioning del farmaco

Current Clinical Management of CTCL



REVIEW

Critical concepts and management recommendations for cutaneous T-cell lymphoma: A consensus-based position paper from the Italian Group of Cutaneous Lymphoma

Pier Luigi Zinzani^{1,2}  | Pietro Quaglino³ | Silvia Alberti Violetti⁴ |
Maria Cantonetti⁵ | Gaia Goteri⁶ | Francesco Onida⁷ | Marco Paulli⁸ |
Serena Rupoli⁹ | Giovanni Barosi¹⁰ | Nicola Pimpinelli¹¹

BV should be considered in cases with multifocal skin lesions CD30+, preferentially plaques and/or nodules, refractory to conventional therapies and in patients developing extracutaneous disease.

According to the available data, the Panel stated that MOGA has become a part of the “2nd line” setting of the therapeutic armamentarium, for patients with SS or highly-symptomatic erythrodermic MF. B.

Both drugs BV and MOGA represent compelling strategies as potential bridge to alloHSCT in transplant-eligible patients.



LINFOMI PRIMITIVI CUTANEI DI DERIVAZIONE T-LINFOCITARIA: LA MULTIDISCIPLINARITÀ OTTIMIZZA IL RISULTATO

4 OTTOBRE 2021 - MILANO

