DISCORDANCE BETWEEN COMPLETE METABOLIC REMISSION AND PERSISTENT BONE MARROW MINIMAL RESIDUAL DISEASE IN PRIMARY CUTANEOUS GAMMA-DELTA T-CELL LYMPHOMA: THERAPEUTIC IMPLICATIONS

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INTRODUCTION

Primary cutaneous gamma-delta T-cell lymphoma (PCGDTCL) is rare and aggressive, with no standardized treatment strategy.
This case highlights a clinically important discordance: **complete metabolic remission on FDG-PET/CT** but **persistent marrow disease by flow cytometry.**

CASE PRESENTATION

38-year-old man (2025):
- 2 months of fever, night sweats, and 12-kg weight loss
- Two right-shoulder subcutaneous nodules; the second measured 1.5 × 1.7 cm and was excised
- Pretreatment absolute neutrophil count (ANC) 570/µL; hemoglobin and platelets normal

DIAGNOSIS & STAGING

Histology: PCGDTCL in subcutaneous adipose tissue; dermis and epidermis spared.
IHC: CD3+, CD56+; CD4−, CD5−, CD8−, CD20−, CD30−, CD138−; Ki-67 ≈90%.
Marrow flow: aberrant T-cell population representing 17.6% of lymphocytes.
PET/CT: scapular lesion SUVmax 16; 15-mm right axillary node SUVmax 4.2.

INITIAL MANAGEMENT

6 cycles CHOP (Sep–Dec 2025), complicated by febrile neutropenia
Interim PET/CT: favorable response
End-of-treatment PET/CT: complete metabolic remission except diffuse marrow uptake
April 2026: BeEAM-conditioned ASCT after persistent marrow disease was identified

TREATMENT, RESPONSE & TRANSPLANT

END-OF-TREATMENT FINDINGS

PET/CT: complete metabolic remission, aside from diffuse marrow uptake
Marrow morphology: normocellular
Flow cytometry: persistent aberrant gamma-delta T cells expressing CD3, CD56, and gamma/delta TCR; lacking CD4, CD5, CD8, and CD20

Interpretation: MRD-positive despite metabolic remission

Management: high-risk biology and persistent disease supported consolidation with BeEAM-conditioned ASCT in April 2026

END OF CHOP
PET/CT
CMR
≠
MARROW FLOW
MRD+
same timepoint

Complete metabolic remission did not exclude persistent marrow disease

Clinical course, response assessment, and transplant decision-making

TIME / STAGE	CLINICAL / TX	PET/CT	MARROW / FLOW	IMPACT
Presentation 2025	B symptoms; 2 nodules; PCGDTCL; Ki-67 ≈90%	Scapula 16; axilla 4.2	ANC 570/µL; 17.6% aberrant T cells	Start CHOP
Sep–Dec 2025	6 cycles CHOP; febrile neutropenia	Favorable interim response	—	Complete CHOP
End of treatment	Post-CHOP	CMR; diffuse marrow uptake	Normocellular morphology	Repeat flow
Post-CHOP flow	—	CMR	Persistent aberrant γδ T cells	**MRD+**
Apr 2026	BeEAM-conditioned ASCT	—	Pre-ASCT MRD+	Consolidation

CONCLUSIONS

PET/CT and marrow flow cytometry provided complementary response information.
Metabolic complete remission did not exclude persistent marrow disease.
MRD positivity contributed to high-risk assessment and consolidation with ASCT.
Prospective studies should define MRD-guided surveillance and maintenance; serial MRD monitoring and CD30 reassessment merit study.

CONTACT INFORMATION

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REFERENCES & ABBREVIATIONS

1. Willemze R, et al. *Blood.* 2019;133(16):1703–1714.
2. Gibson JF, et al. *J Am Acad Dermatol.* 2015;72(6):1010–1015.e5.
ASCT, autologous stem cell transplant; **BeEAM**, bendamustine, etoposide, cytarabine, melphalan; **CHOP**, cyclophosphamide, doxorubicin, vincristine, prednisone; **CMR**, complete metabolic remission; **MRD**, minimal residual disease.