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Introduction

Extranodal B-lymphoblastic lymphoma (B-LBL) with kidney involvement is rare, with only a few cases reported in the literature. To the best of our knowledge, no previous cases treated with allogeneic stem cell transplantation have been documented in the literature.

Date	BUN (mmol/L)	Creatinine (μmol/L)	eGFR (mL/min/m ²)	HB (g/L)	WBC (x10 ⁹ /L)	PLT (x10 ⁹ /L)
28/7/2023	9	121	59	130	4.9	407
7/8/2023	8.5	137	51	126	5.4	414
16/8/2023	7.7	156	44	120	5.1	462
08/09/2023	9.9	192	34	114	3.8	358
10/09/2023	8.7	193	34	111	7.3	336
13/09/2023	9.8	216	30	126	10.1	481
20/09/2023	21.7	381	16	124	7.5	538

Table 1. Blood urea nitrogen (BUN), serum creatinine, and estimated glomerular filtration rate (eGFR) before lymphoma diagnosis. Note that during the same period, full blood count parameters remained stable, despite evidence of bone marrow infiltration by lymphoma.

Case Description

A 38-year-old male underwent a health evaluation in July 2023, during which bilateral nephromegaly was identified via abdominal ultrasound (Figure 1). Abdominal computed tomography (CT) revealed numerous hypodense lesions in both kidneys. Over the following weeks, the patient's renal impairment progressively deteriorated from mild to severe (Table 1). Percutaneous biopsy of the left kidney established a diagnosis of B-LBL. Bone marrow flow cytometry identified 6% atypical lymphoblasts. Cytogenetic analysis revealed a normal male karyotype, and no BCR-ABL rearrangement was detected by FISH analysis. The patient received four cycles of R-hyperCVAD, resulting in a complete remission. He was planned for allogeneic stem cell transplantation given the atypical presentation of the disease, which was performed in September 2024. A repeat CT scan prior to transplantation showed no evidence of active disease (Figure 1); however, MRD was detectable at 0.02%. A 25-year-old male, matched unrelated donor was found. Conditioning consisted of TBF along with *in vivo* T-cell depletion with ATG and GvHD prophylaxis with cyclosporine A and methotrexate.

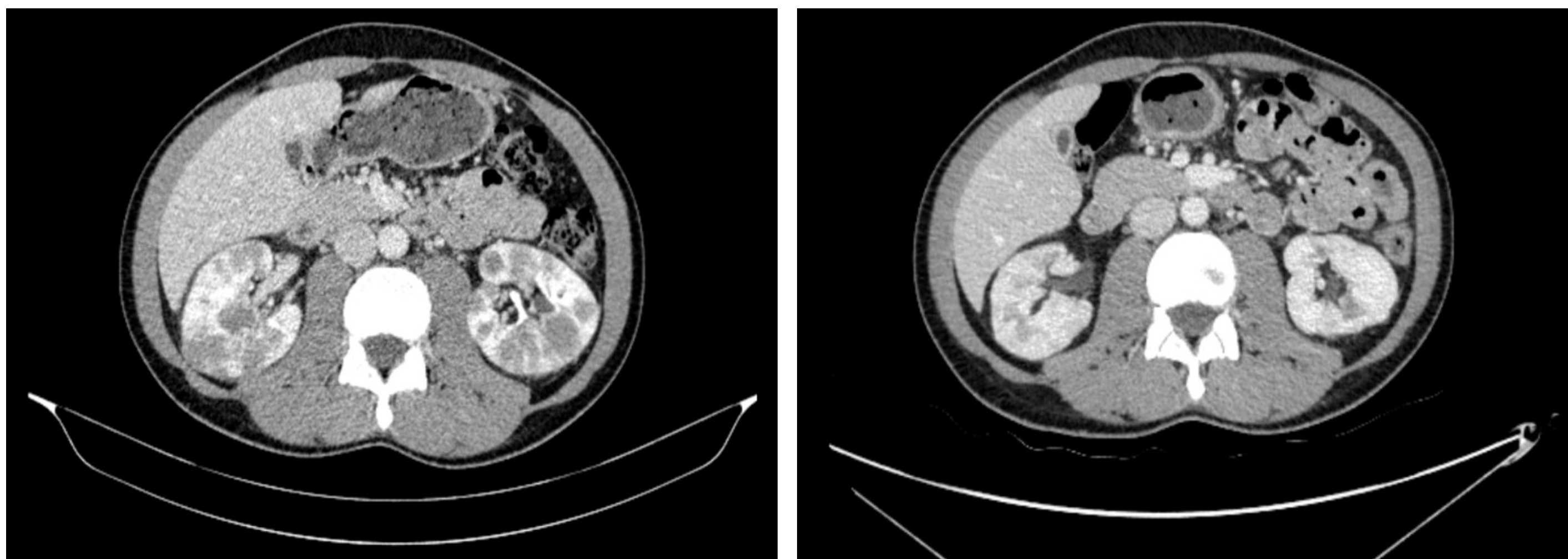


Figure 1. Abdominal CT scan at initial presentation (July 2023) demonstrating bilateral nephromegaly with multiple hypodense lesions (left image). Abdominal CT scan prior to allogeneic stem cell transplantation (August 2024) with no evidence of active disease (right image).

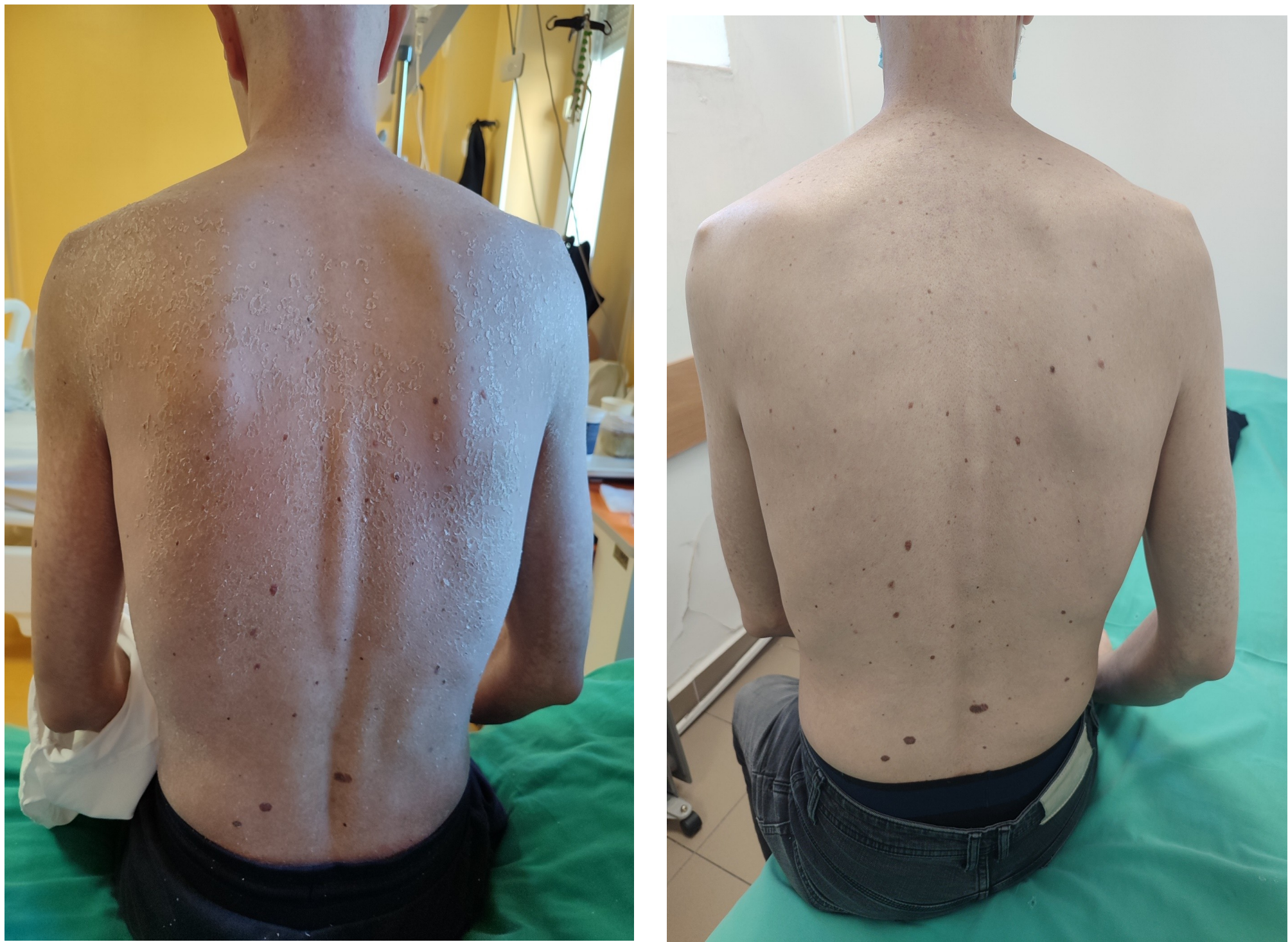


Figure 2. Acute graft-versus- host disease resolution. Picture on the left in top and bottom row are from November 2024. Pictures on the right in the top and bottom row are from January 2025.

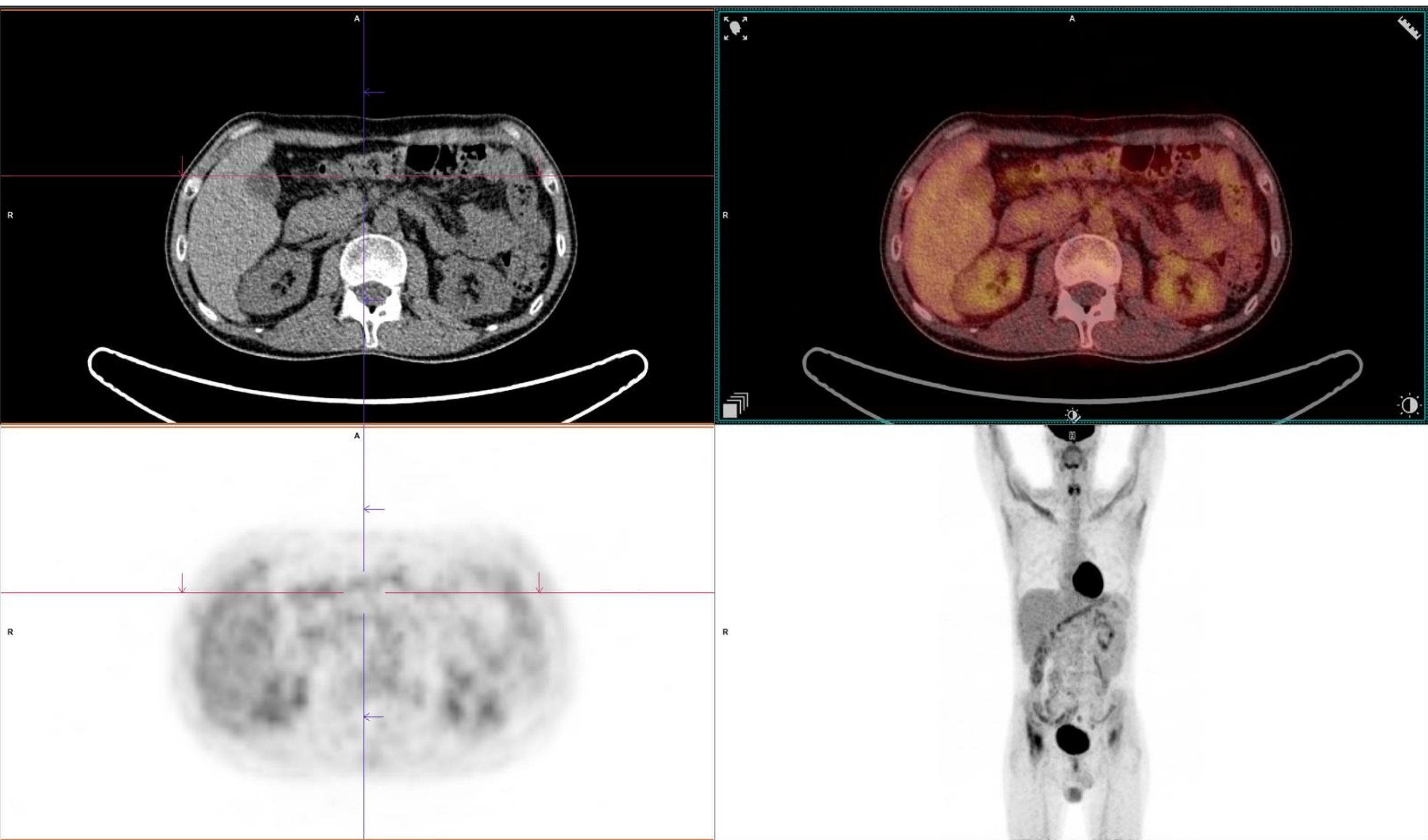


Figure 3. PET/CT performed one year after allogeneic stem cell transplantation shows no evidence of active disease

Conclusion

Extranodal B-LBL with kidney and bone marrow involvement represents a rare and highly aggressive disease, requiring allogeneic stem cell transplantation as a form of consolidation treatment.

References

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