

Very Late Relapse of Germ Cell Tumor After Approximately 25 Years: Is the Current Surveillance Window Sufficient? A Case Report and Focused Review of the Literature

Dr. Sameen Bin Naeem, Dr. Sadia Binte Tariq, Dr. Fatima Akhtar, Dr. Haroon Hafeez, Dr. Sara Batool

Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan

BACKGROUND

Germ-cell tumors (GCTs) are highly curable malignancies, with most relapses occurring within the first two years following treatment. Late relapse is conventionally defined as recurrence more than two years after successful initial therapy, while relapse beyond five years is considered very late relapse (VLR).

VLR is uncommon but clinically important because recurrence has been reported decades after apparent cure. Current European Association of Urology (EAU) guidance estimates the incidence of VLR after five years at approximately 0.5%. Consequently, routine cross-sectional imaging is generally not recommended beyond five years for most patients; follow-up transitions toward individualized survivorship care. Most VLRs are detected following the development of symptoms, and tumor markers may be elevated in up to half of patients with non-seminomatous GCT (NSGCT).

This raises an important survivorship question: does completion of conventional surveillance adequately address the small but persistent risk of recurrence decades later?

OBJECTIVES

Primary objective: To describe an exceptionally late metastatic relapse of mixed germ-cell tumor approximately 25 years after initial treatment, compare its latency and clinical characteristics with previously reported very late relapses, and examine whether contemporary surveillance strategies adequately address recurrence occurring decades after apparent remission.

Secondary objective: To highlight the potential role of lifelong symptom awareness, clinician vigilance and risk-adapted extended follow-up for selected GCT survivors rather than routine lifelong imaging for all patients.

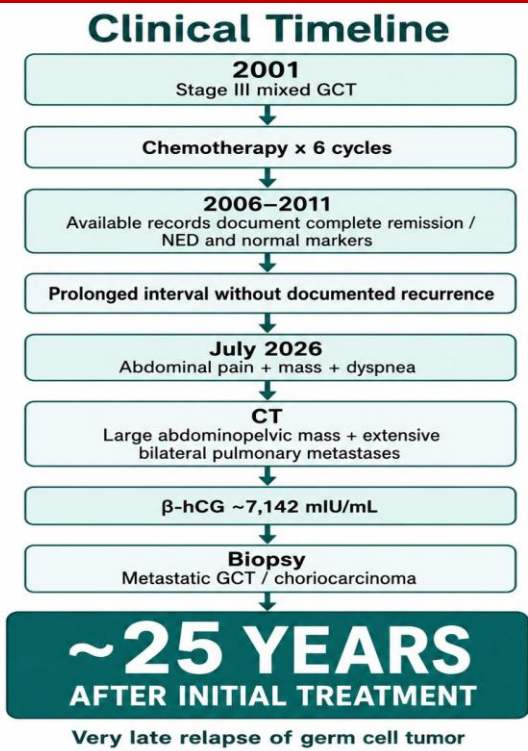
CLINICAL SIGNIFICANCE

Very late relapse of GCT represents a rare and distinct pattern of disease recurrence. Its prolonged latency can obscure the relationship between a remote malignancy and new clinical presentation. Recognition of this phenomenon is important when evaluating new masses, unexplained symptoms, or metastatic disease in long-term GCT survivors.

CASE PRESENTATION

A 41 year old male patient with a history of stage III mixed GCT was treated in 2001 with six cycles of chemotherapy. Subsequent follow-up documented complete remission/no evidence of disease, with normal tumor markers during available surveillance records. Approximately 25 years after initial treatment, the patient presented in July 2026 with:* abdominal pain;* palpable left hemi-abdominal mass;* progressive dyspnea;* increasing oxygen requirement.

TABLE 1. CASE TIMELINE



RADIOLOGICAL FINDINGS

Tru-cut biopsy of the left iliac/abdominal mass demonstrated: Metastatic germ-cell tumor/choriocarcinoma.

Imaging CT demonstrated: * large necrotic left iliac/pelvic metastatic lesion;* extension toward the pelvis/inguinal region;* encasement of iliac vessels;* locoregional lymphadenopathy;* peritoneal involvement/nodularity;* innumerable bilateral pulmonary metastases. This established an exceptionally late, high-volume metastatic recurrence.

FIGURE 1. ABDOMEN & PELVIS SHOWING LARGE METASTATIC MASS IN LEFT INGUINAL REGION



TABLE 2. CURRENT SURVEILLANCE GUIDELINES

Modality	Year 1	Year 2	Year 3	Year 4	Year 5
Tumor Markers / Clinical Visits	4x	4x	2x	2x	Survivorship care plan
Chest X-Ray	1-2x	1x	1x	1x	-
Abdomino-pelvic CT/MRI	1-2x	24 months	36 months	60 months	No routine imaging
Thoracic CT*	1-2x	24 months	-	60 months	No routine imaging

*When pulmonary metastases were present at diagnosis. Important exception: patients with teratoma in resected residual disease should remain under uro-oncology follow-up.

DISCUSSION

The literature confirms that relapse risk falls markedly with time but does not become zero. A population-based cohort of 1,949 GCT patients reported a cumulative late-relapse incidence of 1.3% at 10 years and 1.4% at 20 years; risk was higher among patients who had received primary chemotherapy. EAU 2026 states that VLR after 5 years occurs in approximately 0.5% of patients. Because of this low incidence and the cumulative burden of repeated CT, routine imaging after 5 years is not recommended for most survivors. Most VLRs are detected because of symptoms; in NSGCT, tumor markers may be elevated in up to half.

This case does not establish that all survivors require lifelong CT surveillance. Rather, this and similar cases of VLR support research into risk-adapted long-term strategies and reinforces lifelong patient education and clinician awareness.

CONCLUSION

Very late GCT relapse is uncommon but can occur decades after apparent cure. This approximately 25-year metastatic recurrence adds to published reports showing that relapse risk persists beyond conventional surveillance.

This case supports lifelong relapse awareness and further investigation of clinical/pathological predictors that could identify patients who may benefit from risk-adapted extended surveillance.

