



### REVIEWER'S REPORT

Manuscript No.: IJAR- 50477

Date: 28/02/2025

**Title: "Prognosis of Testicular Germ Cell Tumors: Experience from the Medical Oncology Department of Hassan II Hospital in Fez and a Review of the Literature"**

**Recommendation:**

- ✓ Accept as it is .....
- Accept after minor revision.....
- Accept after major revision .....
- Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer Name: Dr. S. K. Nath

Date: 02/03/2025

**Reviewer's Comment for Publication:**

This study reaffirms the excellent prognosis of TGCTs, particularly seminomas, which demonstrate high survival rates when managed according to international guidelines. The results show that modern treatment strategies, including risk-adapted chemotherapy and active surveillance, are effective even in LMIC settings.

However, challenges such as delayed diagnosis, access to fertility preservation, and treatment adaptation for high-risk NSGCT patients remain critical areas for improvement. Future research should focus on larger multi-center studies, long-term survivorship data, and integrating genetic markers for precision oncology approaches.

This paper provides valuable insights into TGCT prognosis and management in Morocco, contributing to the limited oncological data available from LMICs. By addressing early detection strategies, improving fertility counseling, and expanding genetic profiling, the medical community can further refine treatment approaches and optimize outcomes for TGCT patients worldwide.

### *Reviewer's Comment / Report*

This research paper presents a retrospective analysis of 48 patients diagnosed with testicular germ cell tumors (TGCTs) at the Medical Oncology Department of Hassan II University Hospital in Fez, Morocco, between 2017 and 2024. The study aims to evaluate clinical characteristics, treatment outcomes, and prognostic factors associated with TGCTs.

Testicular germ cell tumors are the most common solid tumors in young men aged 15 to 35 years, with an overall high survival rate exceeding 90%. The study categorizes TGCTs into seminomatous (SGCT) and non-seminomatous (NSGCT) tumors, with a focus on tumor staging, risk stratification, and therapeutic interventions.

**Key findings indicate:**

- Scrotal swelling (80%) was the most common presenting symptom.

## REVIEWER'S REPORT

- Seminomas (SGCTs) accounted for 58.3% of cases, while NSGCTs represented 41.7%.
- Stage I disease was present in 16% of patients, with higher stages (II and III) comprising 32%.
- BEP (Bleomycin, Etoposide, Cisplatin) chemotherapy was the standard first-line treatment.
- Overall survival (OS) was 90%, and progression-free survival (PFS) was 60%, with seminomas showing better survival rates than non-seminomas.

### Key Strengths of the Study

- 1. Well-Structured Clinical and Epidemiological Analysis:** The study presents detailed patient data, including age distribution, risk factors (cryptorchidism in 31.25%), tumor stage, and biomarker levels (AFP, bHCG, LDH). It follows international classification systems (IGCCCG) for prognosis evaluation, allowing for global comparisons.
- 2. Comprehensive Treatment and Prognostic Evaluation:** The study analyzes first-line and second-line chemotherapy regimens, including BEP, TIP, and VIP protocols for disease progression. The inclusion of Kaplan-Meier survival curves for OS and PFS provides a statistical perspective on TGCT outcomes.
- 3. Comparison with Global Literature:** The study contextualizes its findings with international data, comparing TGCT incidence, staging distribution, and survival rates in Europe, Japan, and LMIC settings. Differences in age at diagnosis, stage distribution, and treatment accessibility are discussed.
- 4. Discussion on Fertility Preservation and Radiotherapy:** The paper highlights fertility concerns in TGCT patients, recommending sperm cryopreservation before chemotherapy or radiotherapy. It discusses the evolving role of radiotherapy, particularly in seminomas and palliative care for brain metastases.

### Limitations of the Study

- 1. Small Sample Size and Single-Center Data:** With only 48 patients from a single institution, the study's findings may not be fully generalizable to larger or more diverse populations. A multi-center study with larger cohorts would provide stronger statistical power.
- 2. Limited Long-Term Follow-Up:** The study provides a median follow-up of 4 years, but long-term recurrence rates, late treatment complications, and secondary malignancies remain unexplored. Extended follow-up would offer insights into late-onset toxicity and quality of life.
- 3. No Genetic or Molecular Analysis:** While biomarkers (AFP, bHCG, LDH) were analyzed, the study does not include genetic or molecular profiling of TGCTs, which is increasingly relevant in modern oncology. Incorporating molecular subtyping (e.g., c-KIT mutations, miRNA profiles) could enhance risk stratification and personalized treatment approaches.
- 4. Limited Socioeconomic and Healthcare Access Discussion:** The study acknowledges delayed diagnosis and limited fertility preservation uptake, but a deeper analysis of healthcare disparities in Morocco would improve understanding. Exploring barriers to early detection, affordability of chemotherapy, and access to high-quality surgical and radiotherapy services would provide a broader healthcare perspective.