Sir,

Testicular germ cell tumors (TGCT) most often present as masses in the testes but may uncommonly present with symptoms pertaining to the sites of their metastases. In the latter situation, the primary lesion may be clinically unapparent due to small size, central location or a true burned-out/regressed tumor. The primary tumor can be overlooked in this clinical scenario which may lead to inappropriate patient management.

A 24-year-old man presented with severe abdominal pain to the surgical outpatient department. Physical examination was unremarkable. Lab investigations were significant for mild normocytic anemia. Radiological evaluation showed a 13.2 cm × 7.6 cm × 7.8 cm retroperitoneal mass in relation to duodenum (D3) with a possible diagnosis of gastrointestinal stromal tumor. Surgical excision of the mass with segmental resection of the duodenum was performed [Figure 1a]. Histopathology of the same showed metastatic embryonal carcinoma (EC) infiltrating the duodenum [Figure 1b], confirmed by positive CD30 and OCT3/4 immunostains in the tumor nests [Figure 1c and d]. However, subsequent clinical examination of both testes was normal. Serum markers (alpha-fetoprotein and B-human chorionic gonadotropin) were within normal limits. The discovery of a suspicious heterogenous lesion (1.2 cm × 0.9 cm × 1 cm) in the left testis by scrotal ultrasound led to radical orchiectomy. Histology of the left testis showed extensive areas of atrophy with hyalinized tubules [Figure 2a], fibrosis, and scattered hemosiderin laden macrophages [Figure 2b]. Residual foci of mature teratoma were present [Figure 2d]. Additional sampling of the testicular lesion also revealed foci of intratubular germ cell neoplasia, unclassified (IGCNU) [Figures 2c and 3a] highlighted by OCT3/4 immunostain [Figure 3b]. Integration of the histology of the duodenal metastasis and left testicular lesion confirmed the partial regression of EC component of a mixed GCT.

Regression (Burned-out) of testicular tumor is well-known but uncommon phenomenon with a reported incidence of 10%, defined as spontaneous regression (partial or total) of a TGCT, which after metastatic spread manifests at its primary location as scarring lesion with characteristic histological alterations and sonological findings of testicular microcalcifications.[1,2]

Fewer than 5% of the patients with metastatic testicular cancer present with gastrointestinal involvement and the incidence is even rarer from a retrogressed TGCT. Metastases to the gastrointestinal tract occur by either direct tumor extension from affected lymph nodes or hematogenous spread. High frequency of duodenal involvement is explained by the close proximity of the retroperitoneal lymph nodes to the duodenum.[3,4]
Regression of TGCT is characterized by well-delineated to irregular scar and peripheral testicular atrophy, lymphoplasmacytic infiltrates and ghost tubules, angiomatous foci, siderophages, and coarse intratubular calcifications, the latter correspond to regressed intratubular EC.\cite{5} IGCNU apart from residual invasive tumor in a scarred testis is the single most specific feature for TGCT regression.\cite{5}

Nonneoplastic scars are differentiated by its multifocal occurrence, association with thrombi and vasculitis, absence of IGCNU and coarse intratubular calcifications.\cite{5}

Identification of an undifferentiated carcinoma at unusual sites should raise the differential of a metastatic GCT, particularly in a young male. Testicular ultrasound is of diagnostic value in locating clinically occult tumors. Radical orchiectomy is mandatory because of the high rate of persistent/residual testicular primary despite systemic chemotherapy. Thorough sampling of the respected testis and acquaintance with histological and sonographic features of tumor regression helps in the accurate identification of primary.

---

**REFERENCES**


