

## CASE REPORT

# Primary retroperitoneal seminoma presented as gastrointestinal bleeding

Muhammed A. Hatem, Benny So

Foothills Medical Center, Calgary, Canada

**Correspondence:** Muhammed A. Hatem. Address: Foothills Medical Center, Calgary, AB, 1403 – 29 Street N.W., Canada. E-mail: asl7mak@gmail.com

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## Abstract

We are presenting a case report of primary retroperitoneal seminoma, a 66 year old male patients presented with gastrointestinal bleeding, endoscopic visualization of duodenum suggested duodenal mass which was biopsied percutaneously and the pathology report proved it to be retroperitoneal seminoma, further investigations with testicular ultrasound and CT chest did not find other primary for seminoma which confirmed the retroperitoneal mass to be primary retroperitoneal seminoma.

## Key words

Primary, Retroperitoneal, Seminoma, Rare, Burned out

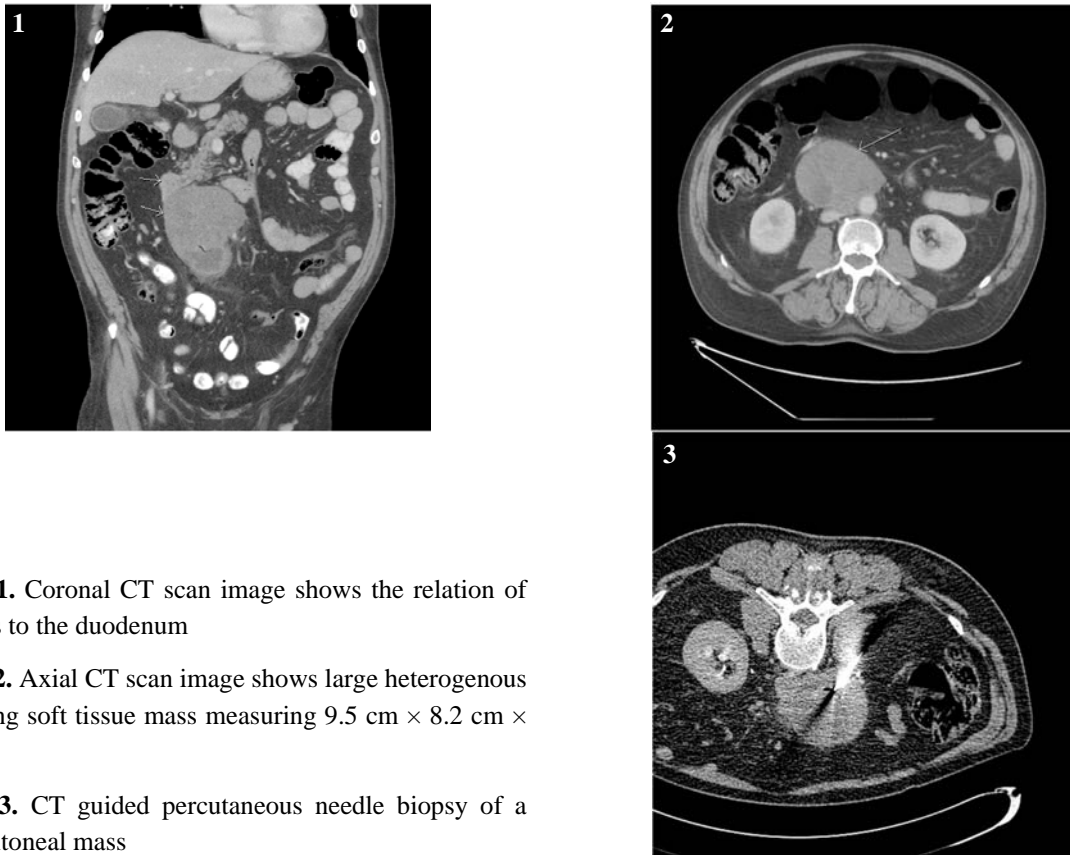
## 1 Introduction

In male patients, testis is the most common site for germinal cell tumor, their occurrence in other locations is very rare and it is called extra gonadal germ cell tumors (EGCT) <sup>[1]</sup>. These tumors account for about 2% of all seminomas, they have been reported in mediastinum, retroperitoneum, thymus and pineal body <sup>[2]</sup>. Mediastinum and retroperitoneum are the first and the second most common sites for extragonadal germ cell tumor, respectively <sup>[1]</sup>. These tumors either arise from primordial germ cells that failed to migrate to scrotum or from totipotential cells remained after embryological development. A third theory proposes that these retroperitoneal tumors are metastasis from occult testicular cancer that burnt out with time <sup>[2]</sup>. Primary retro peritoneal seminoma is a rare condition; it is not usually suggested in the differential list of the retroperitoneal masses on diagnostic imaging. However, 2% to 5% of malignant germ cell tumors are extragonadal in origin <sup>[3]</sup>, primary retroperitoneal seminoma accounts for about 2% of them <sup>[4]</sup> it is approximately account for 50% of extragonadal seminoma <sup>[5]</sup>, because this condition is rare it is often overlooked during investigations which results in diagnosis delay <sup>[6]</sup>.

## 2 Case report

We present a case of 66 year old male patient who presented with gastrointestinal bleeding; endoscope suggested bleeding from a duodenal mass and further CT evaluation confirmed the presence of a retroperitoneal mass which is suggested to be

of duodenal origin (see Figure 1 and 2). This mass was percutaneously biopsied (see Figure 3) and the pathology report returned a diagnosis of seminoma.

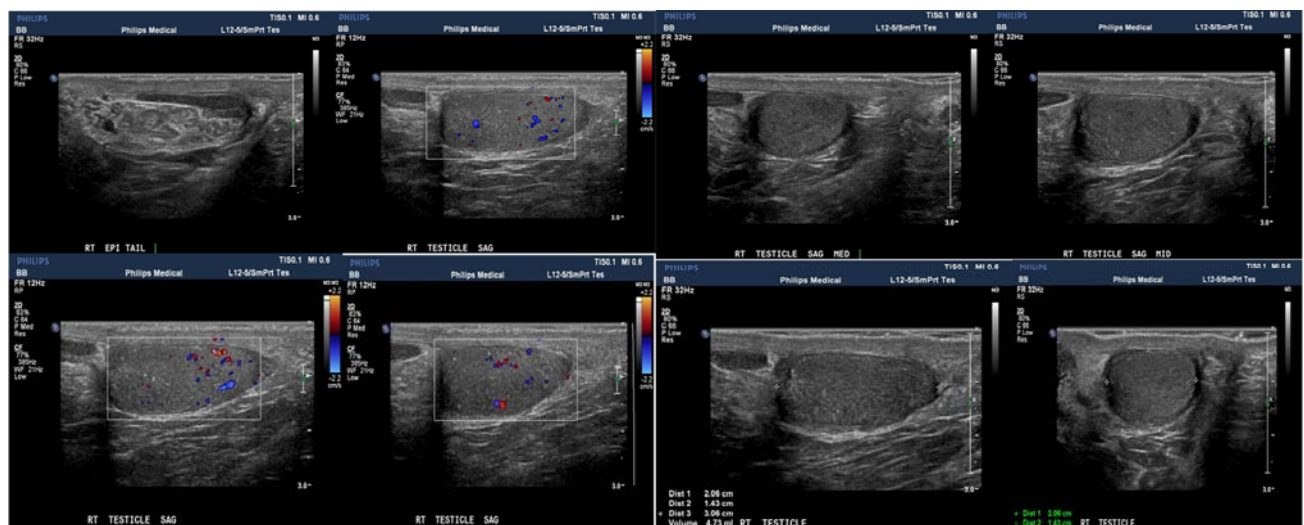


**Figure 1.** Coronal CT scan image shows the relation of the mass to the duodenum

**Figure 2.** Axial CT scan image shows large heterogenous enhancing soft tissue mass measuring 9.5 cm × 8.2 cm × 10.2 cm

**Figure 3.** CT guided percutaneous needle biopsy of a retroperitoneal mass

Since primary retroperitoneal seminoma is rare the pathologists suggested further investigation and evaluation of testes and mediastinum, testicular ultrasound (see Figure 4, 5) showed a normal appearing testicles. However, chest CT scan (see Figure 6) demonstrated multiple mediastinal and hilar lymph nodes, these lymph nodes were thought to be metastasis from retroperitoneal seminoma, chest CT scan did not find a mediastinal mass to suggest mediastinal primary. This patient did not have brain metastasis; this was confirmed by brain CT scan (see Figure 7).



**Figure 4.** Multiple scrotal sonographic images shows normal appearing right testicle

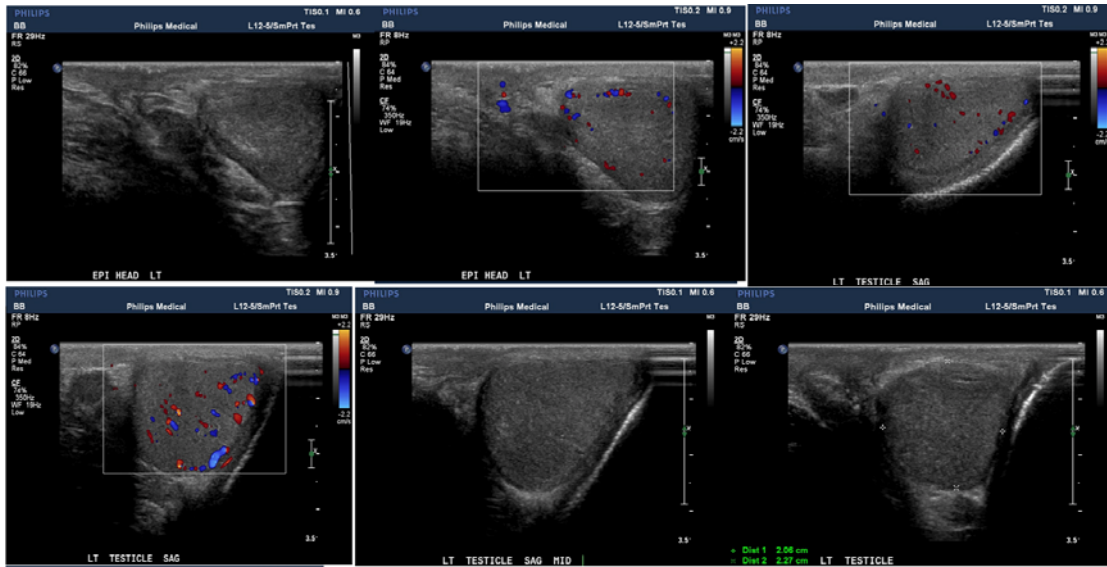


Figure 5. Multiple scrotal sonographic images shows normal appearing left testicle

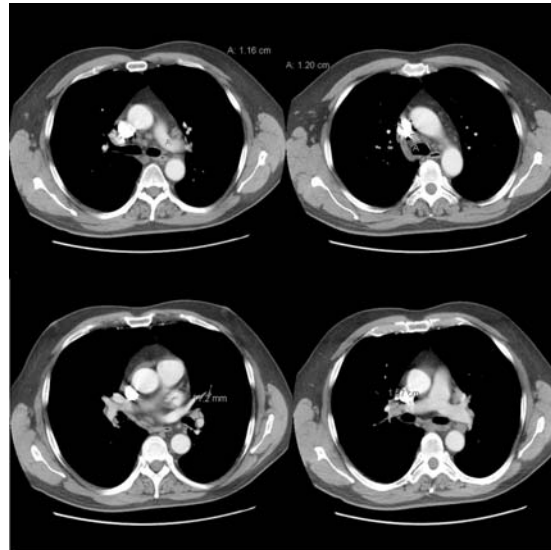


Figure 6. Multiple axial enhanced CT chest shows mediastinal and hilar lymphadenopathy

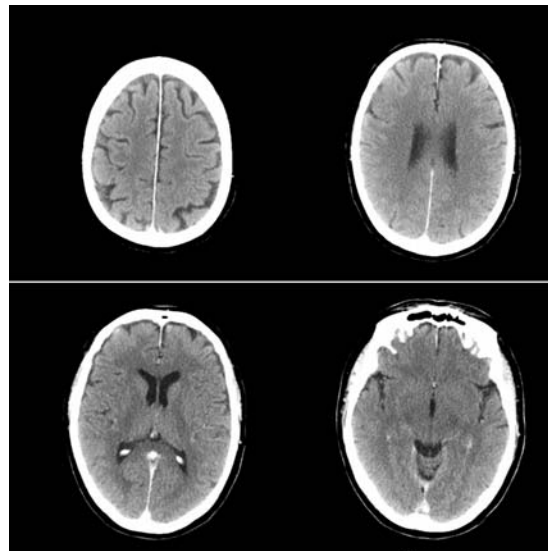


Figure 7. Multiple axial CT head images show normal brain parenchyma with no metastasis

### 3 Discussion

Extra gonadal germ cell tumors have different clinical presentations; however, this is the first time we present a case of extra gonadal germ cell tumor presents with gastrointestinal bleeding. Although primary retroperitoneal seminoma is a rare condition <sup>[4]</sup> it still need to be considered in the differential diagnosis when investigating retroperitoneal masses. Single homogenous soft tissue mass in the retroperitoneum of a male patient should be suspicious for primary retroperitoneal seminoma <sup>[4]</sup>. It is not clear if this pathology develops primarily in the retroperitoneum or it is a metastasis of burnt out testicular tumor <sup>[3]</sup>. Symptoms are non specific, some patients present with testicular or groin pain <sup>[3]</sup> other reported cases presented with of back pain, fever, night sweat, venous thrombosis, hydrocele and very rarely hematuria <sup>[6]</sup>.

The prognosis is good with five years survival of up to 90% after treatment with chemotherapy <sup>[3]</sup>, the differential of this condition includes, lipoma and liposarcoma, lymphoma, metastasis, neurogenic tumor and malignant fibrous histiocytoma <sup>[3]</sup> differentiating primary retroperitoneal seminoma from testicular metastasis might be difficult, however, such differentiation is very important because there are reported cases of testicular seminoma recurrence after up to 18 years from the diagnosis of retroperitoneal seminoma <sup>[6]</sup>. Thus it is recommended to do full and thorough investigations to rule out primary testicular seminoma, and the patient should be advised to have a regular examination of his testicles <sup>[6]</sup>.

### 4 Conclusion

Primary retroperitoneal seminoma is a rare condition; it has quite variable clinical presentations, we present in this case report a primary retroperitoneal seminoma presented as gastrointestinal bleeding.

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