



# Retroperitoneal encysted hematoma in the elderly: a case report

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## Abstract

**Background:** Retroperitoneal encysted hematoma is rare. Early diagnosis is facilitated by computed tomography. The occurrence is often associated with an anticoagulant therapy. We report a case of retroperitoneal encysted hematoma in the elderly.

**Case presentation:** A 72-year-old man was admitted for a painless abdominal mass evolving for 6 months. In his history, he had an episode of ischemic stroke with antiplatelet treatment. Computed tomography showed a retroperitoneal encysted hematoma. Surgical resection was performed. Histopathology confirmed the diagnosis.

**Conclusion:** The diagnosis of retroperitoneal encysted hematoma should be considered in any patients who presents abdominal pain or mass with risk factors as anticoagulant therapy. There is no consensus in the treatment, but surgery has a key place, allowing to eliminate neoplasms

**Keywords:** Hematoma, retroperitoneum, cyst, computed tomography, anticoagulant

## Background

Retroperitoneal hematomas are mainly caused by abdominal blunt traumas, vascular injuries during surgery or coagulation disorders [1]. This is a relatively rare clinical entity [2]. They can be diagnosed in the stage of encysted hematoma, caused by the long asymptomatic evolution due to the compliance of the space in which they develop. The occurrence of this disease in the elderly is often associated with a context of anticoagulant treatment [3]. When the context is suggestive associated with symptoms, early diagnosis is facilitated by CT scan [4]. We report a case of retroperitoneal encysted hematoma in an elderly.

## Case Presentation

A 72-year-old patient was admitted for a painless abdominal mass with feeling of heaviness evolving for 6 months. He had no history of alcohol or tobacco use. In his history, he was followed in Neurology for an ischemic stroke associated with a subdural hematoma. Drainage was performed in association with antiplatelet therapy (Aspegic 100 mg/day). He had a pulse at 80b / min, a blood pressure at 140/80 mmHg. Abdominal examination

showed a large, painless mass with hard consistency occupying the left flank. Blood cell count showed thrombocytosis with platelet concentration of 879,000/mm<sup>3</sup> and anemia with hemoglobin rate of 10.5g/dl. The rest of the biologic assessment was normal (white blood count: 6700 / mm<sup>3</sup>, hematocrit:34.1%, Prothrombin: 91.5% and glycaemia: 0.68g / l). Renal function was normal (urea at 0.21 g / l and creatinine at 10 mg / l). Serum levels of carcinoembryonic antigen (ACE) (<0.50ng / ml) and Ca 19-9 (7.82U / ml) were normal.

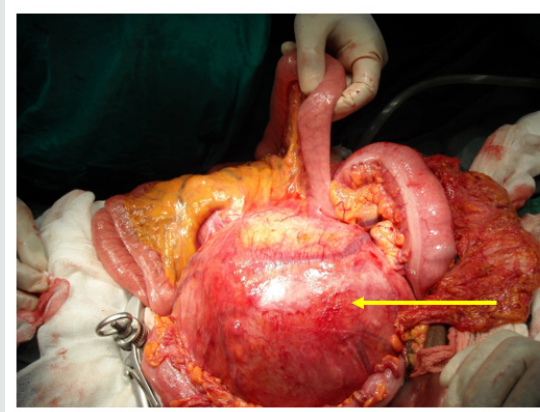
Ultrasound showed a large, well-circumscribed homogeneous mass, developed on the anterior surface of the left kidney with hydronephrosis. CT scan showed a left large cystic left mass with ipsilateral uretero hydronephrosis (Figure 1) suggesting an encysted hematoma or a cystic lymphocele. The exploratory laparotomy found a rounded abdominal mass developed in the retroperitoneum, with a diameter of 25cm pushing the root of the mesentery and the first jejunal loop right (Figure 2). The mass was resected (Figure 3) and the postoperative course was simple. Bacteriology of the intracystic content showed no bacteria and the culture was negative. Histopathology of the operative specimen

macroscopically found a piece of 2500g, cystic, containing a liquid substance of brown color. The wall of the cyst was thin (0.5 to 1cm thick), without vegetation. Microscopy revealed a fibrous wall infiltrated and bordered by polymorphic inflammatory cells rich

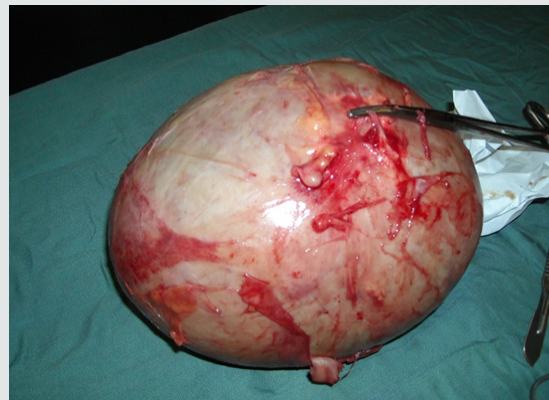
in plasma cells and neutrophils. Moreover, there was no tumor proliferation. With a follow up of 7 years, the patient had no complaints.



**Figure 1:** Abdominal computed tomography showing a hypodense mass pushing the mesenteric root (arrow).



**Figure 2:** Per-operative view of a retroperitoneal encysted hematoma pushing back the mesentery (arrow).



**Figure 3:** Aspect of the surgical specimen.

## Discussion

Retroperitoneal hematomas are rare. Their incidence is estimated between 0.1 and 0.6% [5]. Cystic transformation is due to chronic evolution, often as a late consequence of an unnoticed haemorrhage [2]. They are caused in 2/3 of the cases by hemostasis disorders during an anticoagulant treatment. The other etiologies are abdominal blunt trauma, surgical or instrumental treatment in the retroperitoneum or, more rarely, aneurysms or hemophilia [6]. In our observation, the occurrence of the hematoma would be favored by antiplatelet therapy. Such treatment, like in our case, is indicated after an ischemic stroke to reduce the risk of recurrence [7]. The frequency of retroperitoneal hematomas has increased in recent years, probably with the more frequent indications of anticoagulation common in elderly patients with cardiovascular comorbidities. This explains the more frequent occurrence in this type of patient [8]. In the literature, the mean age of patients with retroperitoneal hematomas related to antiplatelet therapy is 69 years [7].

This was the case in our observation who was elderly with a history of stroke. The main clinical signs found in our case were an abdominal mass with feeling of heaviness. The symptomatology may be absent or minimal, explaining the chronic evolution towards encysted stage. Therefore, the diagnostic of retroperitoneal hematoma should be considered in any patients who presents abdominal pain or mass with risk factors (anticoagulants, antecedent of blunt trauma or coagulation disorders) [9]. In addition, the anatomical configuration of the retroperitoneum with a rich vascular network and good compliance facilitates the formation of large hematomas in case of bleeding [10]. However, the hematomas resorb more often. In rare cases, they can persist and increase in size gradually before having an encysted appearance [1]. Diagnosis at this stage can be difficult. Indeed, the differential diagnosis of retroperitoneal cystic masses is not easy because of their rarity and the multiplicity of etiologies. Thus, CT scan has an important place in the management [11]. It is considered as the quickest, safest, and most accurate modality for diagnosis compared to MRI and ultrasonography [7]. It confirms the diagnosis and rules out neoplasms especially in the elderly. In an evocative clinical context, the encysted hematoma can be considered when the contents are hypo dense with a thin wall without vegetations or partitions [4].

There is no consensus in the treatment of retroperitoneal encysted hematoma [9]. Several options exist including conservative treatment, interventional radiology or surgery [5]. In our case, the chronic evolution posed the differential diagnosis with other retroperitoneal cystic masses and prompted surgical exploration.

Retroperitoneal encysted hematomas may be difficult to differentiate from soft tissue tumors, even with clinical and radiological findings [1]. Histopathology of the operative specimen is necessary to eliminate neoplasms [12]. Encysted hematoma is confirmed by the presence of fibrous tissue in the capsule with

central liquefaction [2]. In our patient, we have a similar aspect without malignant or benign cells. That's why we considered the diagnosis of encysted hematoma. A mortality of 20% is reported in the literature, mainly conditioned by associated comorbidities and the existence of active bleeding [9]. The favorable evolution in our observation probably conditioned by the absence of active bleeding and the realization of the adequate surgical treatment in time.

## Conclusion

Encysted hematoma of the retroperitoneum is a rare condition. It often occurs in the context of hemostasis disorders during anti-coagulant treatment. CT scan helps in the differential diagnosis with retroperitoneal cystic masses. There is no consensus in the treatment. However, surgery is still a good option because it allows to formally eliminate neoplasms.

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## Registration of research studies

Not applicable

## Authors' Contributions

All authors contributed to writing and editing the manuscript.

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Not applicable

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## Conflicts of Interest

"All authors declared that there are no conflicts of interest."

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