
CASE REPORTS

RETROPERITONEAL PELVIC LIPOMA

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A patient with a retroperitoneal pelvic lipoma is presented. Preoperative assessment with computed axial tomography led to the presumptive diagnosis of a fat-containing tumor. Management and differential diagnosis of retroperitoneal tumors are described.

Primary retroperitoneal tumors are rare, anatomically inaccessible, and produce nonspecific symptoms. Of all primary neoplasms of the retroperitoneal space, tumors of lymphatic origin are by far the most common. Retroperitoneal pelvic

lipomas are so rare that there are few cases reported in the literature.

This report describes a patient with a right pelvic mass, with unilateral medial deviation of the right ureter, diagnosed preoperatively as a retroperitoneal lipoma on the basis of computed axial tomography.

CASE REPORT

A 26-year-old black woman, gravida 2, para 2, with intermenstrual bleeding was admitted to the hospital for removal of an intrauterine device. Pelvic examination suggested the presence of a large, right, adnexal mass fixed to the pelvic sidewall. Laboratory tests, including a complete blood count, creatinine, and blood urea nitrogen, were normal. An intravenous pyelogram revealed a soft tissue density in the pelvis with medial deviation of the distal right ureter. Mild hydronephrosis and hydronephrosis were noted on the right side (Figure 1). A barium enema demonstrated the rectosigmoid colon to be displaced from the pelvis.

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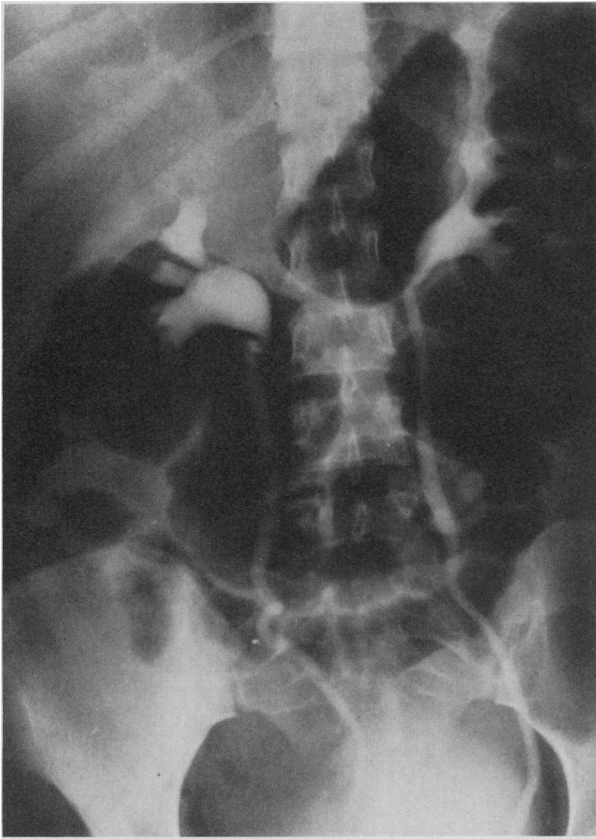


Figure 1. Intravenous pyelogram reveals a large radiolucent mass in the pelvis. Medial displacement and compression of the distal right ureter produces mild hydronephrosis and hydroureter

The mucosal pattern appeared normal. No constricting nor obstructing lesions were noted.

Computed tomography of the pelvis showed an encapsulated, right, retroperitoneal mass compatible in consistency with the fat content of the subcutaneous tissue. There was no evidence of extension into the surrounding tissue. The right ureter was noted to be medially deviated by the mass (Figure 2). A presumptive diagnosis of retroperitoneal pelvic lipoma was made on the basis of these findings.

The patient underwent an exploratory laparotomy and an encapsulated lipoma, measuring 11 × 8 × 3 cm, was resected. Histology confirmed the diagnosis and the absence of malignancy. A postoperative intravenous pyelogram failed to show the previously observed dilation and medial deviation of the ureter (Figure 3).

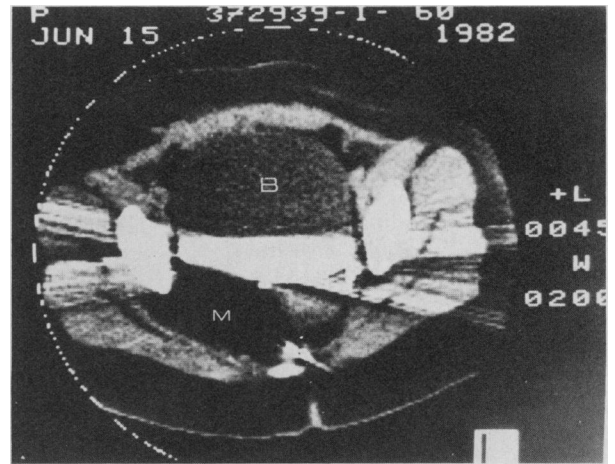


Figure 2. Computed tomography of the pelvis after contrast enhancement reveals a large retroperitoneal mass (M) with uniform fat density. Long arrows outline the outer margins of the retroperitoneal mass. Arrowhead points toward the medially deviated right ureter which, similar to the lower pole of the bladder (B), is filled with contrast material

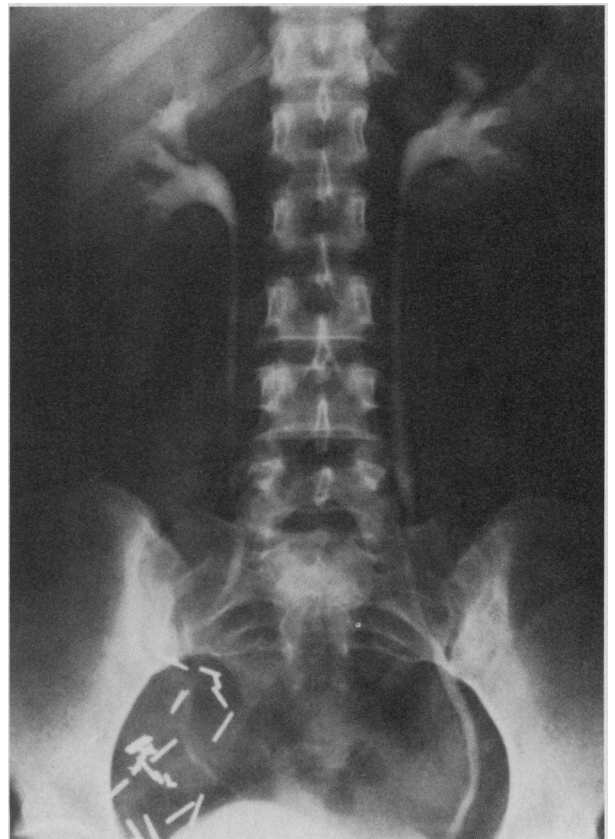


Figure 3. Postoperative intravenous pyelogram demonstrates the ureter in the normal position

TABLE 1. PRIMARY RETROPERITONEAL TUMORS

Tissue	Neoplasia	
	Benign	Malignant
Smooth muscle	Leiomyoma	Leiomyosarcoma
Striated muscle	Rhabdomyoma	Rhabdomyosarcoma
Adipose tissue	Lipoma	Liposarcoma
Connective tissue	Fibroma	Fibrosarcoma
Lymph vessels	Lymphangioma	Lymphangiosarcoma
Lymph nodes	Lymphoma	Lymphosarcoma
Blood vessels	Hemangioma	Hemangiosarcoma
Nerve sheath	Hemangiopericytoma*	
	Neurofibroma	Neurofibrosarcoma
Sympathetic system	Schwannoma*	
	Ganglioneuroma*	Neuroblastoma
Chromaffin tissue	Sympathicoblastoma*	
	Paraganglioma*	
Embryonic remnant	Pheochromocytoma*	
	Teratoma*	Urogenital ridge tumors
	Chordoma*	

*May be either benign or malignant

DISCUSSION

Unilateral medial deviation of the pelvic ureter is rare^{1,2} and usually occurs as a result of a mass in the retroperitoneal area. Such a mass commonly represents enlarged retroperitoneal lymph nodes caused either by metastasis from the rectosigmoid, the urinary bladder, cervix or endometrial cancers, or a localized inflammatory process from chronic appendicitis or diverticulitis of the colon.³ Less frequent causes of unilateral deviation of the ureter include solitary bladder diverticulum and aneurysms of the iliac artery.¹

Primary retroperitoneal tumors also may be responsible for such a deviation at the ureter (Table 1). Approximately 75 percent of these tumors are malignant.⁴ Of these neoplasms, tumors of lymphatic origin are the most common, while those of adipose tissue origin are exceedingly rare.⁵⁻⁷

Computed tomography greatly facilitates the diagnosis of retroperitoneal pelvic masses. It accurately demonstrates the location and extent of disease and involvement of adjacent structures,

if present, enabling the surgeon to make a more accurate preoperative assessment.

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