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## CASE REPORT

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# Bilateral Spontaneous Lumbar Hernias: Computed Tomographic Diagnosis

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### ABSTRACT

*This is a report of an 80-year-old woman with spontaneous bilateral lumbar hernias. These uncommon masses were initially thought to be bilateral lumbar lipomas. Computed tomography allowed differential diagnosis, readily demonstrating the true nature of the lesions and the contents of the hernias.*

*Key Words: Hernia, ventral, Tomography, X-ray computed*

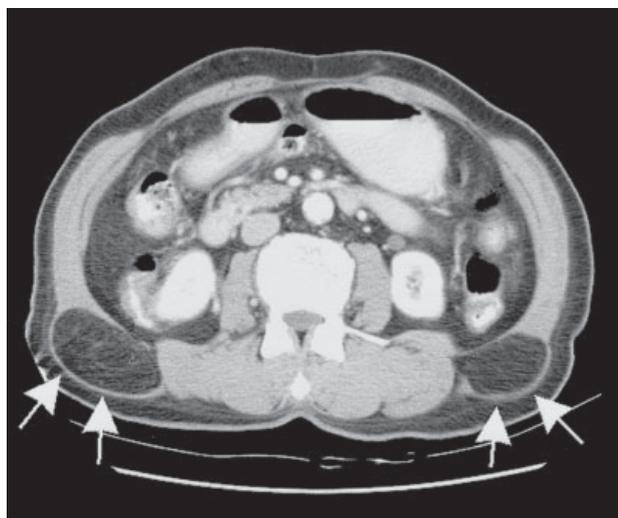
### INTRODUCTION

Lumbar hernias are uncommon and clinical differentiation of lumbar hernia from lipoma is difficult. Computed tomography (CT) is a widely available and useful tool for differentiating lumbar hernia from other soft tissue masses in the flank region. This is a report of an elderly woman with bilateral lumbar hernias that were readily diagnosed on CT examination.

### CASE REPORT

An 80-year-old woman presented with a soft right loin swelling for 1 year. She had no history of significant trauma or surgery. The patient reported that the mass had gradually enlarged, causing some discomfort. At physical examination, bilateral subcutaneous soft flank masses were detected. No cough impulse could be elicited. The provisional diagnosis at that time was bilateral lumbar lipomas. An abdominal CT examination was undertaken to delineate the location and nature of the masses.

The CT examination was performed with a Lightspeed scanner (General Electric, Milwaukee, USA). CT showed bilateral lumbar hernias in the lumbar triangles with focal and smooth disruption of the thoracolumbar fascia and the abdominal wall muscles (Figures 1



**Figure 1.** Computed tomography scan at the lower aspect of the flank masses showed bilateral, well-circumscribed, fat-containing flank masses (arrows), suggestive of bilateral lipomas.

and 2). The latissimus dorsi were thinned and ballooned out, forming the covering of the hernias. The hernia was larger on the right side. Retroperitoneal fat and linear stranding were seen passing through the abdominal wall defect at the necks of the hernias (Figure 2). Part of the Gerota's fascia was seen inside but no solid organ or bowel was entrapped. The necks of both hernias were wide.

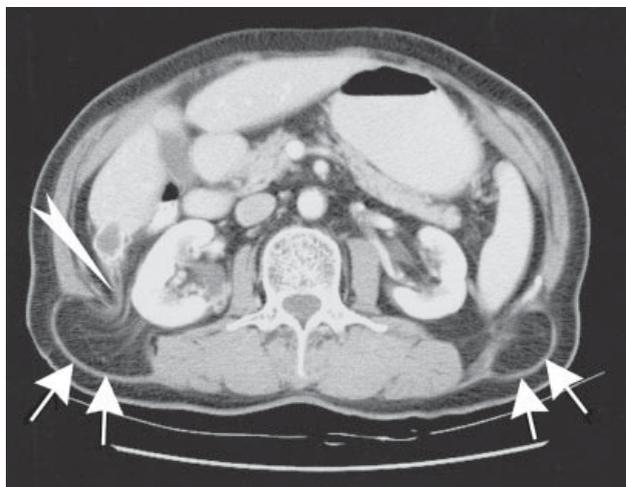
### DISCUSSION

The lumbar region is an area defined superiorly by the 12th rib, inferiorly by the iliac crest, medially by the erector spinae muscle group, and laterally by the posterior border of the external oblique muscle as it extends from the 12th rib to the iliac crest.<sup>1,2</sup> Spontaneous

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**Figure 2.** Computed tomography scan at the level of the necks of the lumbar hernias (arrows) showed retroperitoneal fat and stranding passing through the abdominal wall defects. Part of the Gerota's fascia was herniating on the right side (arrows head).

lumbar hernia most commonly occurs in the superior triangle of Grynfeltt-Lesshaft, inferior to the 12th rib and the inferior lumbar triangle of Petit, immediately cephalad to the iliac crest.<sup>3</sup>

The most common presenting symptom of lumbar hernia is a dragging sensation or discomfort in the flank.<sup>4</sup> Spontaneous lumbar hernia accounts for 50% of reported cases.<sup>3</sup> Other causes include previous trauma or surgery. Muscular weakness as a consequence of intercostal nerve injury, or inadequate closure/diastasis of the muscular or fascial layers are possible causes of postoperative lumbar hernias.<sup>4</sup> Strangulation of a lumbar hernia is relatively uncommon, being reported in approximately 10% of patients because the neck of the hernia is usually wide.<sup>5,6</sup>

Spontaneous lumbar hernia, as seen in this patient, can mimic a soft tissue mass such as lipoma, fibroma, or haematoma. Clinically, the distinction can be difficult. CT is a widely available and useful method for differentiating lumbar hernia from other soft tissue masses in the flank region simply through demonstrating the anatomy in this area. CT can delineate the neck of the hernia, hernial contents, and the muscular and fascial layers involved.

In general, hernial contents tend to be extraperitoneal fat only, extraperitoneal fat plus a retroperitoneal organ such as the kidney or colon- or, in some cases, intra-peritoneal structures such as the small bowel.<sup>6</sup> When the content is mainly extraperitoneal fat, differentiation from a lipoma can be difficult. Disruption in the muscle layers and herniation of the Gerota's fascia, as in this case, provide evidence to confirm the diagnosis of lumbar hernia.

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