ISSN: 3049-7361

Research Article

Journal of Clinical Surgery and Anesthesia

Paraganglioma in an Unusual Location

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Received: May 27, 2025; **Accepted:** June 02, 2025; **Published:** June 10, 2025

ABSTRACT
A 36-year-old female was evaluated for pelvic pain of 6 months duration. She presented to our clinic with the MRI report suggestive of a well-de ned, solid, T1 heterogeneously hypointense and T2 heterogeneously hyperintense lesion displaying post-contrast enhancement, central non-enhancing cystic areas, and areas displaying diffusion restriction, measuring 5.1 x 5.0 x 5.7 cm (APXTRXCC), noted in the mid pelvis at the level of the L5 vertebral body and the L5-S1 intervertebral disc. (Fig 1.). Black arrow pointing to the tumor. The lesion was noted closely abutting the bilateral iliac vessels posterolaterally. Anteriorly the lesion was noted abutting small bowel loops. Functional paraganglioma was ruled out by testing plasma-free metanephrines and 24-hour urine vanillylmandelic acid levels.

CT scans of the head, neck, chest, and abdomen were performed to exclude the possibility of neural crest tumors in other sites. She underwent laparoscopic transperitoneal soft tissue tumor excision.When abdominal paragangliomas are possibly resectable, surgical excision is the preferred course of treatment; typically, this is done through an open procedure. The laparoscopic approach has been reported to be di cult for retroperitoneal paragangliomas due to the di culty of handling a large tumor with forceps, extreme vascularization, and demanding localization despite the recent trend towards minimally invasive surgery.

Full Text

A 36-year-old female was evaluated for pelvic pain of 6 months duration. She presented to our clinic with the MRI report suggestive of a well-de ned, solid, T1 heterogeneously hypointense and T2 heterogeneously hyperintense lesion displaying post-contrast enhancement, central non-enhancing cystic areas, and areas displaying diffusion restriction, measuring 5.1 x 5.0 x 5.7 cm (APXTRXCC), noted in the mid pelvis at the level of the L5 vertebral body and the L5-S1 intervertebral disc. (Fig. 1.). Black arrow pointing to the tumor. The lesion was noted closely abutting the bilateral iliac vessels posterolaterally. Anteriorly the lesion was noted abutting small bowel loops. Functional paraganglioma was ruled out by testing plasma-free metanephrines and 24-hour urine vanillylmandelic acid levels.

CT scans of the head, neck, chest, and abdomen were performed to exclude the possibility of neural crest tumors in other sites. She underwent laparoscopic transperitoneal soft tissue tumor excision. A 6 x 5 cm well-encapsulated soft tissue tumor was noted at the retroperitoneum anterior to L5 and the sacral promontory. The tumor appeared to be arising from the right inferior hypogastric nerve. (Fig. 2.). Blue arrow showing tumor arising from inferior hypogastric nerve. Black arrow showing the tumor. The tumor was excised, and partial right inferior hypogastric nerves were sacriced. Her postoperative course was uneventful. The histopathology report was suggestive of paraganglioma.

Discussuion

A rare neuroendocrine extra-adrenal tumor, paraganglioma shares histological similarities with pheochromocytoma, but differs in its anatomical location [1]. Neural crest-derived cells or paraganglia give birth to these lesions, which can be either sympathetic (releasing catecholamines) or parasympathetic

Citation: Mopuri Chaitanya Kumar Reddy, Nazneen Pallikkalakathu. Paraganglioma in an Unusual Location. J Clin Surg Anesth. 2025. 3(2): 1-2.
DOI: doi.org/10.61440/JCSA.2025.v3.31

non-secretory [1]. Histologically, they are slow-growing with a benign appearance and have been classi ed as World Health Organization (WHO) grade I tumors [1]. Most of these are found in the carotid bodies, the most prevalent extra-adrenal location in the central nervous system, and the jugular glomus [2]. The paraganglia's extensive dispersion means that paragangliomas can develop almost anywhere in the body, except the brain and bones. Although they have been seen in the extremities, these are rare anomalies [3]. As paraganglia linked to autonomous nervous system components are normally distributed, it is not unexpected that paragangliomas can arise in the gallbladder and liver, where they most likely originate from tiny vagus nerve branches in the abdomen [4-6]. When abdominal paragangliomas are possibly resectable, surgical excision is the preferred course of treatment; typically, this is done through an open procedure. The laparoscopic approach has been reported to be di cult for retroperitoneal paragangliomas due to the di culty of handling a large tumor with forceps, extreme vascularization, and demanding localization despite the recent trend towards minimally invasive surgery [7].

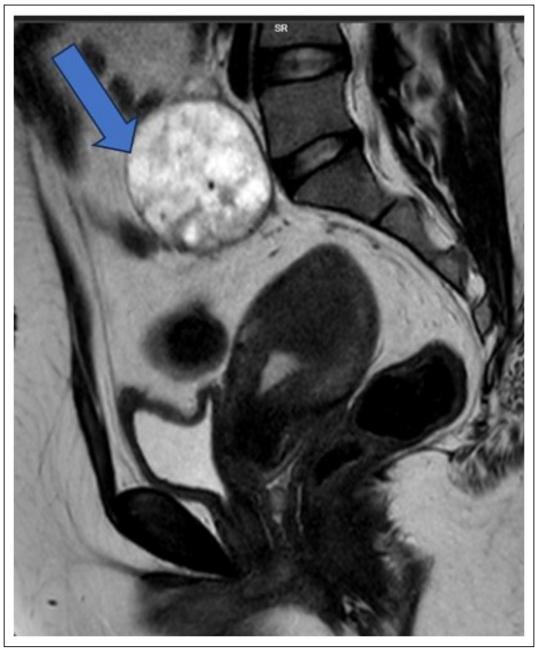

Figure 1: Hyper Intense Lesion Measuring 5.1 x 5.0 x 5.7 cm (APXTRXCC), Noted in the Mid Pelvis at the Level of the L5 Vertebral Body and the L5-S1 Intervertebral disc.

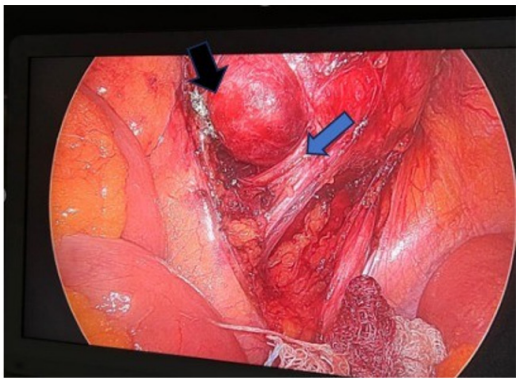

Figure 2: The Tumor Appeared to be Arising from the Right Inferior Hypogastric Nerve

Declaration

The patient in my case report PARAGANGLIOMA IN AN UNUSUAL LOCATION, has provided consent to participate and for the publication of their clinical data.

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