

Trocar Site Hernia After Retroperitoneal Laparoscopic Partial Nephrectomy: A Case Report and Literature Review



Yubo Yang, Ping Han, and Xin Wei, MD

Trocar site hernia is a rare complication after laparoscopic surgery. The incidence of trocar hernia is rarer in retroperitoneal approach of urologic laparoscopy. We report a case of trocar site hernia after retroperitoneal laparoscopic partial nephrectomy. UROLOGY 127: e6–e7, 2019. © 2019 Elsevier Inc.

A 42-year-old woman had undergone a retroperitoneal laparoscopic left partial nephrectomy in a local hospital in 2016. And she did a CT scan in 2017 that demonstrated a hernia in the trocar site (Fig. 1). However, the hernia could not be palpated on her left waist, the patient denied any discomfort, either. Her body mass index was 22.7 kg/m². She did not have any other disease, such as diabetes mellitus or chronic obstructive pulmonary disease. We suggested her to follow-up once a year in future.



Figure 1. CT of the present patient.

Table 1. Literature review of the morbidity of trocar site hernia after laparoscopy

	Morbidity	Surgery
Kadar N, 1993	0.23%-3.1%	Gynecology
Montz FJ, 1994	0.021% (933/438,500)	Gynecology
Janetschek G, 1995	0.43% (1/230)	Urology
Nezhat C, 1997	0.21% (11/5300)	Gynecology
Filip V, 2000	0.477% (15/3145)	General surgery
Hemal K, 2001	0.6% (1/167)	Urology
Dincel O, 2015	3% (4/132)	General surgery
Julliard O, 2016	7.9% (6/79)	Single-incision laparoscopic cholecystectomy
Takei A, 2016	Trans- [*] : 2.2% (1/46) Retro- [†] : 8.7% (14/161)	Urology

* Transperitoneal.

† Retroperitoneal.

Nine studies focused on this issue were identified (Table 1). It was obvious that the morbidity of trocar site hernia since 2015 was 2.2%-8.7%,⁷⁻⁹ which was much higher than that of studies published before 2015 (lower than 1%).¹⁻⁶ We supposed that this may be due to more follow-up data and thoughtful study design in recent years.

The risk factors of trocar site hernia included obesity, age, and port size >10 mm, rectus abdominis muscle thickness <7 mm, and perioperative blood loss >100 ml.^{2,7-9} Takei et al⁹ found that transversus abdominis fascia closure under observation through the kidney-removal site could reduce the incidence of trocar site hernia for patients undergoing retroperitoneal laparoscopy. We doubt that if the “transversus abdominis fascia” may mean to the transversalis fascia, which was presented in Figure 2. Whether a herniate structure formed or nor should also be checked before wound suture.¹⁰

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From the Department of Urology/Institute of Urology, West China Hospital, Sichuan University, Chengdu, Sichuan, P.R. China; and the Department of Urology/Institute of Urology, West China Hospital, Sichuan University, Chengdu, Sichuan, P.R. China

Address Correspondence to: Xin Wei, Department of Urology/Institute of Urology, West China Hospital, Sichuan University, Guoxue Xiang #37, Chengdu, Sichuan 610041, P.R. China. E-mail: xweiwch@126.com

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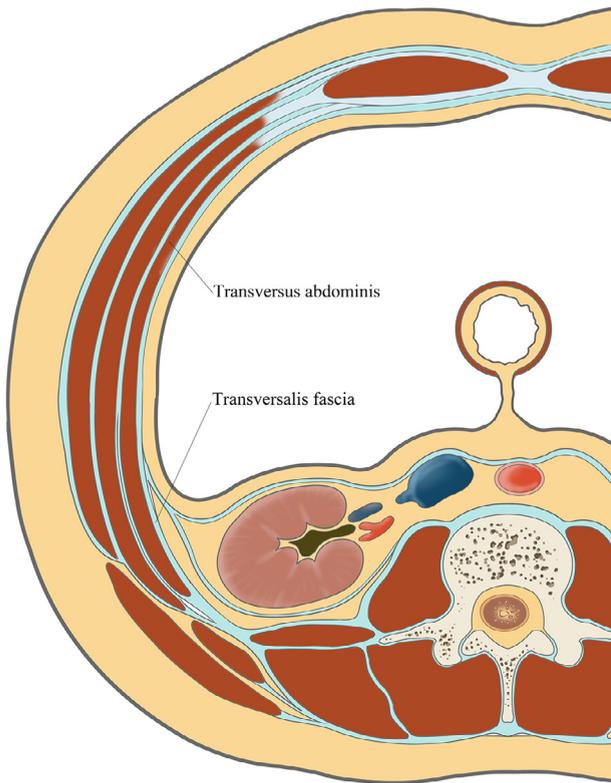


Figure 2. Anatomy of transversalis fascia.

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