Radical lymphadenectomy for advanced colon cancer via separation of the mesocolon into two layers

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Background: Radical lymphadenectomy for advanced colon cancer performed via the medial approach improves oncologic outcomes. However, D3 radical lymphadenectomy possesses some unresolved problems such as the complicated vascular anatomy. We present a simple and safe procedure for laparoscopic right or left hemicolectomy using a medial approach to overcome these problems. The key characteristic of their procedure is separation of the mesocolon into two layers along the superior or inferior mesenteric artery, showing the course of these branches under the mantle of the vascular sheath. This procedure resembles filleting fish into two pieces.

Methods: Since October 2009, we performed laparoscopic right or left hemicolectomy with this procedure. The mesocolon is dissected between the superficial layer of the fat tissue and the deep layer of the vascular sheath along the superior or inferior mesenteric artery. After the course of each branch is exposed, each supplying or draining vessel is transected at its root. The use of a laparoscope and a spatula-type electric cautery greatly contributes to this procedure. Next, the bowel is mobilized, and the specimen is retrieved through the small incision. Finally, extra or intra-corporeal anastomosis is performed.

Results: No intra-operative complications occurred. The median total operative time was 205 min (range, 140-338 min), and the intraoperative blood loss was minimal (range, 0-110 g). The postoperative course was uneventful for all the patients.

Conclusion: The authors consider the described method to be simple and safe for radical lymphadenectomy during a laparoscopic right or left hemicolectomy.

Biography
Gaku Akiyama graduated from Hirosaki University School of Medicine in 2004. He has completed resident course and general surgery program of Saku Central Hospital. He worked at Kyoto University and Weil Cornel Medical College as clinical Fellow. And now, he is working at Saku Central Hospital as a colorectal Surgeon. He has published several papers in reputed journals as a joint author.

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