

Laparoscopic colorectal resection for a giant colonic diverticulum – video vignette

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A giant colonic diverticulum (GCD) is rare with less than 200 cases reported in the literature (1,2). By definition, a GCD is larger than 4cm in diameter with a close relationship to the sigmoid colon in more than 90% of cases (3,4). *En bloc* resection of the diverticulum along with a segment of colon followed by a primary anastomosis is the best approach (5, 6).

The authors present a case of a 62-years-old man with sigmoid diverticulosis and several episodes of diverticulitis presenting with a painless hypogastric/left iliac fossa abdominal mass. CT scan showed a round 11 cm smooth walled structure filled with gas, adjacent to the anti-mesenteric border of the sigmoid and to the urinary bladder. The patient underwent a laparoscopic colorectal resection with partial cystectomy for this giant colonic diverticulum.

Four trocars were used for laparoscopic access, with a step-by-step approach as follows: **i.** splenic flexure mobilization, **ii.** giant diverticulum dissection with partial bladder resection, **iii.**

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closure of bladder, **iv.** sigmoid colon and intra-peritoneal rectum resection with primary anastomosis.

The post-operative course was uneventful and the patient was discharged home on day 4. The urinary catheter was removed on the 10th post-operative day.

The pathological specimen confirmed the pre-operative diagnosis of a GCD.

There is a consensus that this extremely rare complication of diverticular disease should have a prompt resection due to a high risk of rupture. The laparoscopic approach is feasible and safe despite a complex dissection due to the large diverticulum.

Supporting information: video

References

1. Joyce, D. P., & Toomey, D. P. (2017). Laparoscopic resection of giant pseudodiverticulum - a video vignette. *Colorectal Dis*, 19(3), 305-306. doi:10.1111/codi.13620
2. Steenvoorde, P., Vogelaar, F. J., Oskam, J., & Tollenaar, R. A. (2004). Giant colonic diverticula. Review of diagnostic and therapeutic options. *Dig Surg*, 21(1), 1-6; discussion 6. doi:10.1159/000074833
3. Zeina, A. R., Mahamid, A., Nachtigal, A., Ashkenazi, I., & Shapira-Rootman, M. (2015). Giant colonic diverticulum: radiographic and MDCT characteristics. *Insights Imaging*, 6(6), 659-664. doi:10.1007/s13244-015-0433-x
4. Nigri, G., Petrucciani, N., Giannini, G., Aurello, P., Magistri, P., Gasparrini, M., & Ramacciato, G. (2015). Giant colonic diverticulum: clinical presentation, diagnosis and treatment: systematic review of 166 cases. *World J Gastroenterol*, 21(1), 360-368. doi:10.3748/wjg.v21.i1.360
5. Chater, C., Saudemont, A., & Zerbib, P. (2015). Giant colon diverticulum. *J Visc Surg*, 152(5), 336-338. doi:10.1016/j.jviscsurg.2015.06.002
6. Del Pozo, A. C., Bartolotta, V., Capitano, S., Fusco, M. D., Chiodi, L., & Boccoli, G. (2016). A gas-filled abdominal cyst in an elderly woman: A giant colonic diverticulum case report. *Int J Surg Case Rep*, 24, 104-107. doi:10.1016/j.ijscr.2016.05.029