Robotic right colectomy in a patient with ventriculoperitoneal shunt. Report of a case


Article history:
Received 26 March 2019 Received in revised form 2 May 2019 Accepted 7 May 2019
Available online 11 May 2019

Igor Monsellato, Marco Lodin, Fabio Priora

SS. Antonio e Biagio e Cesare Arrigo Hospital, Alessandria, Italy

Abstract

Introduction: Ventriculoperitoneal shunt procedure has become the most common neurosurgical method for hydrocephalus because it considerably improves patients prognosis.

Pneumoperitoneum has been considered a contraindication to laparoscopic surgery because of risk for increased intracranial pressure during pneumoperitoneum and/or malfunction/infection of the VP shunt itself. Laparoscopic resection of the cecum and of the rectum for cancer has been reported. Presentation of case: A 74-year-old man with ventriculoperitoneal shunt for normal pressure hydrocephalus referred to the emergency medicine ward for COPD, lower limb oedema and severe anemia. CT Scan showed a substenotic tumor of the right colon and non-specific enlarged regional lymph nodes, with no distant metastases. Colonoscopy confirmed the presence of an ulcerated of the right colon involving half of the colic lumen. A right colectomy with CME was carried out, with a stapled intracorporeal ileocolic side-to-side isoperistaltic anastomosis and without manipulating the VPS catheter.

Discussion: Laparoscopic surgery in patients with VPS tubes was previously contraindicated because of the possibility of shunt-associated complications, that may include shunt malfunction due to increased intra-abdominal pressure, damage or infection of the catheter. Some authors reported that intracranial pressure increased up to 25 mmHg at a pneumoperitoneum pressure of 12 mmHg. Herein we report, to our knowledge, the first case report of robotic assisted right colectomy for cancer in a patient with a VP shunt.

Conclusion: Robotic assistance may allow to perform colorectal resection safely and with low risk also in patients with ventriculoperitoneal shunt.

© 2019 The Author(s). Published by Elsevier Ltd on behalf of IJS Publishing Group Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Keywords:
Robotic surgery - Ventriculoperitoneal shunt - Robotic right colectomy - Colorectal cancer
Minimally-invasive surgery - Hydrocephalus