



Evaluation of peri-operative management of patients with deep endometriosis infiltrating the sigmoid colon or the rectum. A SEGI project.

The following questionnaire has been developed to address the peri-operative management of patients with deep endometriosis infiltrating the sigmoid colon or the rectum within our Group.

For each Institution belonging to SEGI, one questionnaire is to be filled in involving the physicians responsible for surgery and anesthesiology/intensive care unit.

Institution: _____

Responsible for SEGI centre: _____

Responsible for Gyn. Surgery: _____

Responsible for Anesthesiol./Intensive Care Unit: _____

GENERAL INFORMATION

1. Your Institution is:

- a) University hospital
- b) General hospital
- c) Cancer Center
- d) Private Hospital

2. Last year, how many deep infiltrating endometriosis DIE patients were operated on at your Institution?

- a) <15
- b) 16-29
- c) 30-49
- d) ≥50

3. Last year, how many DIE patients underwent sigmoid/rectal (discoid or segmental) resection at your Institution?

- a) <15
- b) 16-29
- c) 30-49
- d) ≥50

4. Last year, which was the proportion of complete removal of (all) visible endometriosis in surgeries for DIE?

- a) <60%
- b) 60-79%
- c) 80-99%
- d) 100%

5. Is an endometriosis network already active in your region?

- a) No
- b) Yes

5.1 If yes, is your Institution included among those where DIE patients are referred to?

- a) No
- b) Yes

6. Which proportion of sigmoid/rectal (discoid or segmental) resection for DIE are performed by a gynecologic surgeon, or, however, by a general surgeon specifically dedicated to endometriosis management?

- a) <90%
- b) ≥90%

7. Which proportion of sigmoid/rectal (discoid or segmental) resection for DIE are performed via laparoscopic/robotic surgery at your Institution?

- a) 100%
- b) 95 – 99%
- c) 90 – 94%
- d) 85 – 89%
- e) <85%

7.1 Last year, which was the rate of sigmoid/rectal (discoid or segmental) resection for DIE converted from a minimally invasive procedure to an open surgery?

- a) 0%
- b) 1 – 3%
- c) 4 – 5%
- d) 6 – 10%
- e) >10%

8. How many papers have been published on DIE by your group during the last year?

- a) 0
- b) 1-3
- c) >3

9. Is your centre participating in clinical trials on endometriosis during the last year?

- a) No
- b) Yes



10. At your Institution, a pre-, intra-, and post-operative management protocol has been formally implemented for DIE?

- a) No
- b) Yes

11. Is a structured reporting of intra-operative findings/surgical procedures routinely used?

- a) No
- b) Yes

11.1 If you use a structured reporting of intra-operative findings, please specify which one (more than one option allowed).

- a) Endometriosis fertility index (EFI) score
- b) Enzian score
- c) revised American Fertility Society (r-AFS) classification
- d) Other, specify (type or capital letters): _____

12. Does a structured prospective reporting exist for perioperative complications?

- a) No
- b) Yes

PREADMISSION PHASE of DIE patients undergoing sigmoid/rectal resection (discoid or segmental)

13. Is psychological intervention routinely provided to reduce stress, support behaviour change, and encourage overall well-being?

- a) No
- b) Yes

14. Are dietary interventions and aerobic exercise programs routinely provided?

- a) No
- b) Yes

14.1 If a diet is routinely provided, this is a

- a) high protein and low-fiber diet
- c) diet based on a nutritional consultation

15. Is the use of tobacco and alcohol routinely assessed?

- a) No
- b) Yes

15.1 If yes, are preoperative interventions adopted for complete alcohol and smoking cessation at least four

weeks before surgery?

- a) No
- b) Yes

16. Do you investigate preoperative anemia in your patients?

- a) No
- b) Yes

If yes

16.1 How do you investigate preoperative anemia in your patients?

- a) Red blood cell count and hemoglobin value
- b) Red blood cell count, hemoglobin value and iron status (serum iron, ferritin, transferrin saturation, PCR)

16.2 Which are the hemoglobin levels considered for pre-operative (>2 weeks) supplementation with Fe, B12 and folates?

- a) <12 g/dL
- b) <11 g/dL
- c) <10g/dL

17. Do you routinely provide a pre-admission counselling (at least 2 weeks before surgery) on surgical/anesthetic procedures and on the care plan in the post-operative period?

- a) No
- b) Yes, in oral form only
- c) Yes, in both written and oral form

17.1 If yes, does the patient meet all members of the team including (at least) the surgeon, anesthetist, and nurse?

- a) No
- b) Yes

PRE-OPERATIVE MANAGEMENT

In patients undergoing discoïd resection

18. Do you prescribe any preoperative (1-3 weeks preop.) bowel preparation?

- a) No
- b) Yes, laxatives
- c) Yes, oral vaseline

19. Do you prescribe any preoperative (during the 1-7 days before surgery) antibiotics?

- a) No
- b) Yes, oral cephalosporine ± metronidazole
- c) Yes, parenteral cephalosporine ± metronidazole

20. Do you prescribe any preoperative (day before) bowel preparation?

- a) No
- b) Yes, routinely

20.1 If yes, which kind of bowel preparation is adopted?

- a) Rectal enema
- b) Saline osmotic solution

In patients undergoing segmental resection,

21. Do you prescribe any preoperative (1-3 weeks preop.) bowel preparation?

- a) No
- b) Yes, laxatives
- c) Yes, oral vaseline

22. Do you prescribe any preoperative (during the 1-7 days before surgery) antibiotics?

- a) No
- b) Yes, oral cephalosporine ± metronidazole
- c) Yes, parenteral cephalosporine ± metronidazole

23. Do you prescribe any preoperative (day before) bowel preparation?

- a) No
- b) Yes, routinely

23.1 If yes, which kind of bowel preparation is adopted?

- a) Rectal enema
- b) Saline osmotic solution

In patients undergoing sigmoid/rectal resection (discoïd or segmental)

24. Which is the diet prescribed during the 8h before the intervention?

- a) Absolute fasting
- b) Only clear fluids until 6h
- c) Only clear fluids until 2h
- d) Light meal until 6h, clear fluids incl. oral carbohydrate drinks until 2h

25. Do you routinely use sedative/anxiolytics?

- a) No
- b) Yes

26. Do you indicate to discontinue hormone therapy prior to surgery?

- a) No
- b) Yes

INTRA-OPERATIVE MANAGEMENT of DIE patients undergoing sigmoid/rectal resection (discoid or segmental)

27. To prevent post-operative nausea and vomiting

27.1 Do you routinely use antiemetic drugs (e.g. ondansetron, dexamethasone, droperidol)?

- a) No
- b) Yes

27.2 Do you use total intravenous anaesthesia?

- a) No
- b) Yes

28. For postop. analgesia and/or prevention of nausea and vomiting

28.1 Is an ultrasound-guided block (e.g. transversus abdominis plane block) performed?

- a) Yes, 100%
- b) Yes, >50%
- c) Yes, <50%
- d) Never

28.2 Is epidural anaesthesia performed?

- a) Yes, 100%
- b) Yes, >50%
- c) Yes, <50%
- d) Never

29. Is a mechanical prophylaxis of venous thromboembolism (VTE) routinely adopted?

- a) No
- b) Yes, with stockings
- c) Yes, with pneumatic compression devices

30. The skin preparation is performed using:

- a) Chlorhexidine-alcohol

b) Povidone-iodine

31. Concerning intraoperative opioid use, which of the following strategies is usually adopted?

- a) Opioid sparing (only at the induction)
- b) Opioid free
- c) Opioid liberal

32. Which of the following intraoperative strategies are adopted? (more than one option allowed)

- a) Long-acting sedatives given as premedication
- b) Neuromuscular monitoring
- c) Temperature monitoring
- d) Processed-EEG based monitoring (e.g. bispectral index)

33. Do you adopt measures preventing intraoperative hypothermia (i.e.: warming using forced air blanket devices, underbody warming mattresses, warmed intravenous fluids)?

- a) No
- b) Yes, routinely
- c) Yes, in selected cases only

34. Do you routinely adopt intraoperative measures for screening diabetes and controlling glycaemia?

- a) No
- b) Yes

35. Which of the following intra-operative strategies are adopted for hemodynamic monitoring?

- a) Invasive hemodynamic monitoring (e.g. pulmonary artery catheterization)
- b) Mini-invasive hemodynamic monitoring (by arterial cannulation)
- c) Transesophageal echocardiography
- d) Non-invasive hemodynamic monitoring (other than standard oscillometric methods, and heart rate such as those based on thoracic electrical bioimpedance or bioactance methods)
- e) Standard hemodynamic monitoring (oscillometric methods, and heart rate)

36. Concerning intraoperative fluid management, which of the following strategies is adopted?

- a) Goal-directed therapy under invasive, mini-invasive, and non-invasive hemodynamic monitoring technologies
- b) Restrictive (zero-balance) strategy (only the fluid that is lost during surgery is replaced)
- c) Liberal fluid management (administration of fluid to account for presumed preoperative deficits, as well as intraoperative blood and urinary losses)

37. In patients undergoing discoid resection with circular stapler, which kind of antibiotic prophylaxis is adopted?

a) Cephalosporine

b) Cephalosporine + metronidazole

38. In patients undergoing discoid resection with cold scissors and stitches (without using circular stapler), which kind of antibiotic prophylaxis is adopted?

a) Cephalosporine

b) Cephalosporine + metronidazole

39. In patients undergoing segmental resection, which kind of antibiotic prophylaxis is adopted?

a) Cephalosporine

b) Cephalosporine + metronidazole

40. Do you administer a repeated intra-operative dose of prophylactic antibiotics? (more than one option allowed)

a) Yes, for prolonged operations (≥ 4 hours)

b) Yes, for obese patients ($BMI \geq 30.0$ kg/m²)

c) Yes, in cases of severe blood loss

d) Never

41. Concerning intraoperative opioid use, which of the following strategies is usually adopted?

a) Opioid sparing (only at the induction)

b) Opioid free

c) Opioid liberal

42. Which of the following intraoperative strategies are adopted? (more than one option allowed)

a) Long-acting sedatives given as premedication

b) Neuromuscular monitoring

c) Temperature monitoring

d) Processed-EEG based monitoring (e.g. bispectral index)

43. Which of the following intra-operative strategies are adopted for hemodynamic monitoring?

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c) Transesophageal echocardiography

d) Non-invasive hemodynamic monitoring (other than standard oscillometric methods, and heart rate such as those based on thoracic electrical bioimpedance or bioreactance methods)

e) Standard hemodynamic monitoring (oscillometric methods, and heart rate)

44. Concerning intraoperative fluid management, which of the following strategies is adopted?



- a) Goal-directed therapy under invasive, mini-invasive, and non-invasive hemodynamic monitoring technologies
- b) Restrictive (zero-balance) strategy (only the fluid that is lost during surgery is replaced)
- c) Liberal fluid management (administration of fluid to account for presumed preoperative deficits, as well as intraoperative blood and urinary losses)

45. In patients undergoing discoid resection, is (are) peritoneal drain(s) positioned at the end of surgery?

- a) No
- b) Yes, routinely
- c) Yes, in selected cases only

45.1 If in selected cases only, please specify (more than one options allowed):

- a) Obese patients
- b) Intraoperative >500 mL blood loss
- c) Urinary tract surgery
- d) Doubt about adequacy of blood supply at the margins of resection
- e) More than one bowel resection

46. In patients undergoing segmental resection, is (are) peritoneal drain(s) positioned?

- a) No
- b) Yes, routinely
- c) Yes, in selected cases only

46.1 If in selected cases only, please specify (more than one options allowed):

- a) Obese patients
- b) Intraoperative >500 mL blood loss
- c) Urinary tract surgery
- d) Doubt about adequacy of blood supply at the margins of resection
- e) Doubt about tension of the anastomosis
- f) More than one bowel resection

47. Are surgical wounds infiltrated with local anaesthetics?

- a) No
- b) Yes, routinely
- c) Yes, in selected cases only

48. When do you remove gastric tube?

- a) At the end of surgery
- b) Within the first 12 – 24 hours

c) At the time of gas passing

POST-OPERATIVE MANAGEMENT of DIE patients undergoing sigmoid/rectal resection (discoid or segmental)

49. Is post-operative (72h) pain routinely monitored, and by whom?

- a) No
- b) Yes, and reported on the daily clinical files
- c) Yes, through a provided structured form filled in by nurses

50. How is post-operative (72h) pain managed (excluding paracetamol and/or FANS)?

- a) Opioid-based continuous intravenous analgesia (strong opioids)
- b) Intravenous opioid-based patient controlled analgesia (strong opioids)
- c) Oral opioid-based patient controlled analgesia (sufentanil)
- d) Weak opioids (tramadol) combined or not with other systemic drugs (e.g., acetaminophen)
- e) Epidural analgesia alone
- f) Epidural analgesia in combination with other approaches (e.g., intravenous rescue of strong opioids or continuous weak opioids)
- g) Intrathecal analgesia
- h) Peripheral nerve block

51. Which of the following opioids are used post-operatively? (more than one option allowed)

- a) Fentanyl
- b) Morphine
- c) Remifentanyl
- d) Sufentanil
- e) Meperidine
- f) Intravenous Oxycodone
- g) Opioids are not administered

52. In patients undergoing discoid resection with circular stapler, how antibiotic therapy is routinely given?

- a) only intraoperative prophylaxis
- b) intraoperative + early postoperative (5 days)
- c) until discharge
- d) until discharge and continued at home

53. In patients undergoing discoid resection with cold scissors and stitches (without using circular stapler), how antibiotic therapy is routinely given?

- a) only intraoperative prophylaxis
- b) intraoperative + early postoperative (5 days)

- c) until discharge
- d) until discharge and continued at home

54. In patients undergoing segmental resection, how antibiotic therapy is routinely given?

- a) only intraoperative prophylaxis
- b) intraoperative + early postoperative (5 days)
- c) until discharge
- d) until discharge and continued at home

55. Do you prescribe post-operative (at least 3-4 weeks postop.) low molecular weight heparin (LMWH) antithrombotic prophylaxis?

- a) No
- b) Yes, only in patients with previous VTE
- c) Yes, based on models (e.g. Caprini's score) for the assessment of VTE risk
- d) Yes, routinely

56. Post-operative fluid reuptake

56.1 In patients undergoing discoid resection

- a) Direct after surgery
- b) In 6 hours
- c) In 6-12 hours
- d) >12 hours
- e) Only after gas passing

56.2 In patients undergoing segmental resection

- a) Direct after surgery
- b) In 6 hours
- c) In 6-12 hours
- d) >12 hours
- e) Only after gas passing

57. Postoperative feeding

57.1 In patients undergoing discoid resection

- a) In 6 hours
- b) In 6-12 hours
- c) >12 hours
- d) Only after gas passing

e) Only after feces passing

57.2 In patients undergoing segmental resection

a) In 6 hours

b) In 6-12 hours

c) >12 hours

d) Only after gas passing

e) Only after feces passing

58. Do you administer high protein diets after surgery?

a) No

b) Yes

59. When does the patient usually begin the post-operative mobilization?

a) The day of surgery

b) The day after surgery

c) Two days after surgery

d) When bladder catheter is removed

60. When bladder catheter is removed (excluding pts undergoing urinary tract surgery)?

a) At the end of surgery

b) The day after surgery

c) Two days after surgery

d) At the time of gas passing

61. If peritoneal drain(s) has (have) been positioned because of bowel surgery, when do you remove it?

a) At the time of gas passing

b) At the time of feces passing

62. If peritoneal drain(s) has (have) been positioned for reasons other than bowel surgery, when do you remove it?

a) Within 24 hours

b) In 2-3 days

c) In 4-5 days

d) >5 days

63. When Hospital discharge is usually planned?

63.1 In patients undergoing discoid resection

a) 2-3 days after surgery

- b) 4-5 days after surgery
- c) 6-7 days after surgery
- d) The day after gas passing
- e) The day after feces passing

63.2 In patients undergoing segmental resection

- a) 2-3 days after surgery
- b) 4-5 days after surgery
- c) 6-7 days after surgery
- d) The day after gas passing
- e) The day after feces passing

64. During the last year, which was the proportion of DIE patients undergoing sigmoid/rectal (discoid or segmental) resection and suffering from complications requiring reintervention?

- a) <3%
- b) 3-5%
- c) 6-10%
- d) 11-15%
- e) >15%

65. Do you routinely provide post-operative education for patients before discharge, including nutritional counseling, instruction on post-operative feeding and return to work and sport?

- a) No
- b) Yes

66. After hospital discharge, do you routinely collect patient-reported outcomes, including symptom burden assessment and functional recovery?

- a) No
- b) Yes

67. Do you routinely use ERAS auditing tools?

- a) No
- b) Yes