

CNGOF Guidelines for the Management of Endometriosis

Anatomoclinical forms of endometriosis

Definitions

Endometriosis is defined as the presence of endometrial tissue containing both glands and stroma outside the uterine cavity (clinical experience of the guideline development group).

The macroscopic appearance of the lesions is usually suggestive (NP2), but histological investigation (excised tissue or biopsy) is recommended (clinical experience of the guideline development group).

Negative histology does not mean that the disease can be excluded (grade C). Equally, the presence of positive lesions on histology does not confer a diagnosis of endometriosis unless the patient has symptoms that are suggestive of the condition. (NP1).

Macroscopically, three forms of endometriosis are described: superficial peritoneal (or ovarian) endometriosis, endometriotic cyst of the ovary or ovarian endometrioma, and deep infiltrating endometriosis (DIE) (NP1). However, there is no evidence to suggest that there is any difference in the physiopathology and natural history of these three forms .

In the absence of any acknowledged definition of deep infiltrating endometriosis, for the purpose of these recommendations, the group decided that DIE describes those lesions which infiltrate the retroperitoneum or viscera (rectum, vagina, uterus, bladder, ureter, small intestine, etc) (clinical experience of the guideline development group).

Natural history of endometriosis

The natural history of symptomatic endometriosis remains unclear. The lesions can remain unchanged, progress or regress (NP1). There is no indication to treat asymptomatic endometriosis i.e. no pain, no infertility, nor pelvic mass. This holds true regardless of the stage (grade B).

Malignant potential

There is an association between endometriosis and cancer of the ovary, but the degree of risk of malignant transformation of endometriosis remains the subject of debate (NP4). There is insufficient data present to recommend any special preventive measures or additional monitoring due to the risk of tumor formation in women diagnosed with endometriosis (clinical experience of the guideline development group).

Clinical and biological assessment of endometriosis

What signs and symptoms are suggestive of endometriosis?

Endometriotic lesions can be responsible for various painful symptoms (NP1). When symptoms are cyclical in nature, this is suggestive of endometriosis (NP2), but no particular symptom (dysmenorrhoea, dyspareunia, etc) is specific to this disease (NP2). The delay between the beginning of the symptoms and the eventual diagnosis is typically several years (NP3). The presence of severe and persistent painful symptoms should therefore trigger investigation for this condition (grade C). This recommendation is also true for infertile women (grade C).

When endometriosis gives rise to pain, there is a degree of correlation between the pattern of the pain and the characteristics of the endometriotic lesions (location, infiltration in depth, adhesions) [NP2]. Evaluation of the characteristics of pain is recommended for diagnostic and therapeutic management of painful endometriosis (grade C).

Advantages of pelvic physical examination

Physical examination of the pelvis is useful for the diagnosis of deep infiltrating lesions or endometriotic cysts (NP3). The examination may be normal (NP3). It is more reliable when carried out during the menstrual period (NP3).

Examination of the retrocervical area using the speculum, by vaginal and (possibly) rectal examination, is recommended (grade C).

Assessment of the severity of symptoms

A self-reported pain intensity scale e.g. visual analogue scale, numeric rating scale, verbal rating scale, or multidimensional rating scale is useful to assess the severity of pain before and after treatment (grade B).

Biological work-up

CA 125 levels may be increased in some cases of endometriosis (NP2), but plasma assay for diagnostic and prognostic purposes is not recommended (grade A).

Endometriosis and Imaging

All imaging techniques require operators skilled in the diagnosis of endometriosis clinical (experience of the guideline development group).

Pelvic ultrasonography by the transvaginal route is reliable (NP2) and is most often

sufficient to confirm or exclude the diagnosis of ovarian endometrioma (grade B). During trans vaginal pelvic ultrasonography, care should be taken to explore the area located in front of the uterus and the retrocervical area (consensus of professional opinion).

Magnetic resonance imaging or MRI can also be used to investigate endometriosis.

However, precise sequences are required in order for this investigation to be effective (consensus of professional opinion). MRI provides the means of mapping the exact location of deep retroperitoneal lesions (NP2). It can thus be used as part of the preoperative workup, but systematic use is not recommended (consensus of professional opinion). It is useful where there is clinical suspicion of DIE (grade B). However, MRI is not generally recommended for the diagnosis of endometriomas (experience of the guideline development group).

Rectal endoscopic ultrasonography may be useful in the preoperative workup of patients with rectovaginal endometriosis in order to assess infiltration of the rectal muscularis (grade B).

Colonoscopy and barium enema are not useful for the preoperative workup (grade C).

The urinary tract should be investigated (renal ultrasonography, Uro-MRI, IVU) as and when needed such as when large retroperitoneal lesions are suspected (grade C).

Good practice in diagnostic laparoscopy

Indications and technique of diagnostic laparoscopy

Endometriotic lesions identified visually at laparoscopy or laparotomy is the gold standard of diagnosis (grade A). Diagnostic laparoscopy for suspected endometriosis should be preceded by an appropriate workup (consensus of professional opinion). Endometriosis can give rise to many different types of lesions (NP2). Diagnostic laparoscopy may overlook certain endometriotic lesions, in particular deep retroperitoneal endometriotic lesions DIE (NP2). The methods for laparoscopic investigation must comply with strict rules.

The operation report must describe the size, macroscopic appearance, location and depth of infiltration for all the lesions, as well as the adhesions (experience of the guideline development group). As part of management of infertility, reference to recognized classifications would appear appropriate (grade C). There are no data to support the superiority of one classification system above another.

It is appropriate to carry out the diagnostic phase and the treatment phase for endometriosis during the one procedure (experience of the guideline development group). However, in the event that treatment of a lesion discovered during laparoscopy would present increased surgical risks, it may be preferable to refrain from treating it in order to complete the workup and consider management under optimal conditions (experience of the guideline development group).

In case of emergency laparoscopy (suspected salpingitis, adnexal torsion, or cyst complications), surgical excision of endometriotic lesions discovered incidentally during surgery is not recommended (experience of the guideline development group).

In particular, surgical management of complicated endometriotic cysts is no different from that of any other type of cyst.

Management of painful endometriosis

The endometriotic lesions diagnosed are not always the only etiology for the pain suffered by patients (NP2).

Psychological factors may influence the degree of pain in women with endometriosis (NP3). Pain caused by endometriosis may result in personality changes (NP2).

Psychological management of patients suffering from chronic pelvic pain improves the results of treatment (NP1). A multidisciplinary approach is recommended for management of pain associated with endometriosis (grade C).

Hormonal or surgical treatment should be suggested in cases of painful endometriosis (grade A).

Medical treatment results in the pain and progress of the disease being frozen (NP1).

Certain lesions may be missed or fail to respond to medical treatment (NP4). In patients presenting with pain due to endometriosis, the objective of hormonal medical treatment directed at establishing amenorrhea (contraceptives, continuous monophasic estrogen-progestins, progestins, danazol or Gn-RH analogs) is recommended in order to treat the painful symptoms of endometriosis (grade A). These treatments should be used according to the protocols outlined by AFSSAPS (French Health Product Safety) in 2005. As far as possible, the diagnosis of endometriosis should be confirmed histologically or surgically before instituting long-term treatment (experience of the guideline development group).

Gn-RH analogs should not be prescribed for more than one year (AMM). Addition of add-back therapy is recommended when treatment exceeds three months (grade A).

Surgical treatment of endometriosis is effective in treating pain (NP1). It is recommended in cases of symptomatic endometriosis, provided that the individual benefit/risk ratio is favorable (grade A).

When an endometrioma is discovered in a patient presenting with pain due to endometriosis, it is recommended to search and treat other sites of endometriosis at the same time (grade B).

There is no data available to compare the results of prolonged exclusive medical treatment compared to surgical treatment (with or without adjuvant medical treatment) in the medium and long term.

In cases of recurrence of pain postoperatively, medical treatment can be commenced (experience of the guideline development group). Total hysterectomy with bilateral salpingo-oophorectomy and excision of implants is an effective option for recurrent pain (grade C).

There is insufficient data currently to recommend a strategy to prevent recurrence.

Regular follow-up and support improve patient satisfaction (grade C).

Management of infertility associated with endometriosis

First line management

Minimal or mild endometriosis can sometimes cause infertility (NP1). This association appears to be more evident for rAFS stages 3 and 4 (NP3). Consequently, in the context of a workup for infertility, a lower threshold is recommended to perform laparoscopy when endometriosis is suspected on either clinical or ultrasonographic data (experience of the guideline development group).

If there are no signs suggestive of endometriosis, use of intra-uterine insemination (IUI) is recommended before performing laparoscopy (grade B).

When laparoscopy is carried out, surgical treatment of the lesions, if feasible, is recommended in order to improve fertility (grade B). However, there is still insufficient data to make the same conclusions in cases of deeply infiltrating endometriosis.

After surgery, postoperative medical treatments are not recommended (grade B) (aside from the direct referral to in vitro fertilization (IVF)).

When the diagnosis of endometriosis is suspected, direct recourse to in vitro fertilization prior to laparoscopy is only justified in very rare situations, such as when IVF would have been indicated regardless (previous history of salpingectomy, male infertility) [grade C].

If laparoscopy demonstrates extensive lesions for there is a high risk of surgical complications, direct use of IVF without any surgical procedure is recommended (experience of the guideline development group).

Second line treatment

After satisfactory surgery with no other risk factors, it is recommended to wait for 6 to 12 months before commencing a new treatment (grade C). This period should be modified according to the patient's age and other risk factors for subfertility/subfertility (experience of the guideline development group).

Repeat surgery is not recommended when the only reason is infertility persisting after the initial surgery (grade B).

The strategy following unsuccessful initial treatment depends on the stage of endometriosis, and on associated factors. When there is an obvious mechanical factor (stages 3 and 4 or tube involvement), IVF is recommended (grade C). In the other cases, there are several options such controlled ovarian stimulation and, intra-uterine insemination (grade B). If these treatments fail, it is recommended to resort to IVF (grade C). It is recommended that the endometriosis be treated medically using Gn-RH analogs before commencing IVF (grade A)

Endometriomas and IVF

Endometriomas have no impact on the final result of IVF (NP3). If an endometrioma is discovered during stimulation for IVF, this should not lead to interruption of the cycle (grade B). For endometriomas measuring less than 6 cm, neither repeat surgery nor

drainage of the endometriomas is recommended prior to IVF (grade C).

Pain and infertility

In case where there is an association between infertility and persistent (or recurrent) pain after initial surgical treatment, it is recommended that repeat surgery be avoided as far as possible. The use of hormonal treatment (continuous estroprogestins, progestins, danazol or Gn-RH analogs) between the IVT attempts should be preferred (experience of the guideline development group).

Methodology for surgical management

Choice of approach

Laparoscopy is the most appropriate approach for treating ovarian endometriomas and superficial peritoneal endometriosis (grade B).

The feasibility of laparoscopic or laparoscopically assisted vaginal procedures, carried out by skilled surgeons, has been demonstrated for all forms of deep infiltrating endometriosis (NP3).

The exclusively vaginal approach is not recommended for treatment of deep infiltrating endometriosis (experience of the guideline development group).

Since complete excision of the lesions is the goal, complete surgery via laparotomy is always preferable to incomplete surgery via laparoscopy (experience of the guideline development group).

Surgery for superficial peritoneal endometriosis

Both laparoscopic techniques for treatment of superficial endometriosis, i.e. destruction (coagulation, laser vaporization) or excision of the lesions, are effective (NP2). No therapeutic trial has compared these two techniques

Surgery for endometriotic cysts of the ovary

Ultrasound-guided drainage is not first line treatment (grade C). Simple laparoscopic drainage is also not recommended because it results in immediate recurrence (grade B). Laparoscopic cystectomy is superior to drainage followed by destruction of the cyst wall by bipolar coagulation for endometriomas measuring at least 3 cm in diameter, regardless of the indication for surgery (infertility, pain or adnexal mass) [NP1]. Cystectomy should be performed whenever technically feasible (grade A).

The three-step strategy: diagnostic laparoscopy with drainage, followed by medical treatment using analogs, then a second laparoscopy for cystectomy, appears to be comparable to a one step treatment in terms of recurrence, pregnancy, and keeping adhesions to a minimum (NP3). This approach provides an alternative when one-step surgery is too difficult (grade C).

Oophorectomy is an alternative to cystectomy only in women who no longer desire pregnancy, or who have suffered a recurrence (grade C).

Use of preoperative medical treatment with Gn-RH analogs in order to render surgery for endometriomas easier is not recommended (grade C).

Surgery for deep infiltrative endometriosis

It is recommended that the most severe lesions be treated by teams experienced in the management of endometriosis (experience of the guideline development group).

When there is no rectal involvement, surgery to excise DIE lesions in the rectovaginal septum (including the vagina or uterosacral ligaments) results in an improvement of endometriosis-related pain in 60 to 100% of patients (NP3). Surgery for excision is recommended because it is effective in treating painful symptoms in the medium term (grade C). The results in the longer term have not been assessed.

Surgery to excise DIE lesions with bowel involvement results in a significant improvement in pain (NP4). There is no consensus concerning either the technique nor how radical the resection should be for severe endometriotic lesions involving the bowel (experience of the guideline development group).

Partial cystectomy is recommended for the treatment of DIE lesions infiltrating the bladder wall (grade C). Transurethral resection has no place in the surgical treatment of bladder endometriosis (experience of the guideline development group).

Adjuvant surgery for pain

Simple hysterectomy (preserving the ovaries and without excision of the implants) is not recommended because of the high risk of failure with respect to pain (grade C).

Ovarian conservation is associated with a higher risk of recurrence (NP3). However it is not possible to define the place of surgical castration due to lack of data.

Isolated resection of the origin of the uterosacral ligaments (LUNA) is not recommended for the management of painful endometriosis (grade A). There is currently insufficient data to recommend presacral nerve ablation for the treatment of painful endometriosis (experience of the guideline development group).

The data available is insufficient to recommend isolated adhesiolysis for treating pain due to endometriosis (grade C).

The use of certain adhesion barriers during surgery for endometriosis is effective for prevention of re-formation of pelvic adhesions (grade A).

Complications of surgery for endometriosis

The rate of major complications of surgery for endometriosis is between 0.1% to 15% depending on the extent of the lesions (NP3). The highest rates are observed during management of deep infiltrating endometriosis (NP3). These complications can have an adverse effect on spontaneous fertility. The patient must be informed of the risk of serious, specific complications and their possible repercussions on fertility (grade C). It should be explained that improvement in pain symptoms is not guaranteed after surgery (experience of the guideline development group).

Particular localisations of endometriosis

Parietal endometriosis

Preoperative diagnosis of parietal endometriosis relies upon MRI (NP4). Surgical treatment is recommended and consists of complete excision of the mass with safe margins (grade C). Performing laparoscopy to search for pelvic lesions is not recommended (experience of the guideline development group).

Appendicular endometriosis

Endometriosis of the appendix is a frequent location for intestinal endometriosis (NP4). When a laparoscopy is performed as part of the workup for endometriosis, there is no data to support appendectomy during the same procedure (consensus of professional opinion). However, where laparoscopy has been performed for pain, the existence of deep lesions responsible for induration or rigidity of the appendix justifies appendectomy (experience of the guideline development group).

Pleural endometriosis

Occurrence of a pneumothorax or hemothorax during menses should lead to the possibility of pleural endometriosis (NP4). Definitive diagnosis depends on thoracoscopy (NP4), but this means of investigation does not result in diagnosis of pleural endometriosis in 100% of cases (NP4). Therefore, this investigation is not recommended as an initial test (experience of the guideline development group). The aim of initial treatment of pleural endometriosis is to treat the pneumothorax and avoid subsequent recurrence by achieving long term amenorrhea by use of medical hormonal treatment (grade C). When this fails, treatment is surgical and should involve pleurodesis and surgical treatment of the lesions (grade C).

Pulmonary endometriosis

Pulmonary endometriosis is a very rare location, and the diagnosis of pulmonary endometriosis is suggested by the catamenial character of the symptoms (NP4). Additional investigations for diagnosis (bronchoscopy, CT scan, MRI) must be carried out during menstruation, which improves the probability of diagnosing pulmonary endometriosis (grade C). The respective places of medical and of surgical treatment for pulmonary endometriosis are difficult to define in view of the absence of comparative data. Although there is an association between endometriosis in the thorax and in the pelvis (NP4), the indication for laparoscopy must be assessed according to the patient's symptoms (pelvic pain or infertility) (experience of the guideline development group).

Diaphragmatic endometriosis

Catamenial pain in the right lung or right shoulder should raise the possibility of diaphragmatic endometriosis (grade C). Conventional laparoscopy does not always allow the lesions to be viewed, as they may be located in the posterior part of the diaphragm. Medical and surgical treatments appear to be efficient (NP4), but there is insufficient data to outline a management strategy.

Adenomyosis

Adenomyosis is defined histologically as the existence of endometrial stroma and glands in the myometrium, at varying depths (NP1).

Adenomyosis is often asymptomatic (NP2). Adenomyosis giving rise to symptoms is responsible for pain and/or bleeding (NP2).

The diagnosis of adenomyosis is based on positive histology on hysterectomy specimens (grade A). MRI is the most reliable means of diagnosis (NP2). It is not recommended to perform MRI for diagnostic purposes apart from when there are associated lesions of the uterus (grade B) or where high risk surgery is proposed (consensus of professional opinion).

Ultrasound, diagnosis of adenomyosis is reasonably reliable.

Asymptomatic adenomyosis should be neither treated nor monitored (grade C).

Hysterectomy is the treatment of choice for patients with symptoms and who no longer desire pregnancy (grade B).

Alternative medical treatments rely on the levonorgestrel-releasing intrauterine system, Gn-RH agonists and antigonadotropic progestins (grade C).

Uterine embolisation is not recommended with the current level of evidence (experience of the guideline development group).

Techniques for endometrial destruction and hysteroscopic resection may be effective in the medium-term with respect to menorrhagia (NP4). These procedures represent a surgical alternative to hysterectomy in women with isolated menorrhagia who no longer desire pregnancy (grade C).