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## EXTRAPELVIC ENDOMETRIOSIS ACCORDING TO THE RECOMMENDATIONS OF THE ESHRE ENDOMETRIOSIS GUIDELINE 2022

**Introduction.** Endometriosis is a common condition in women of reproductive age. Endometriosis affects roughly 10% (190 million) of reproductive age women and girls globally. In addition to pain, endometriosis may also reduce fertility [1]. Endometriosis can significantly decrease the quality of life of the affected women [2]. It is a psychological and economic burden to the women and their families [3]. The effect of endometriosis on the quality of life concerns not only severe pain during menstruation, urination, defecation and intercourse but also psychological and social status as well as family planning. From the onset of the first symptoms until the correct diagnosis is established, up to 7 years pass by on average [4].

Extrapelvic endometriosis is a rare and complex phenomenon. The pathologic mechanism of intrapelvic endometriosis is generally accepted as being largely due to retrograde menstruation through the fallopian tubes; however, the mechanism by which extrapelvic endometriosis forms has proven to be much more elusive. This article reviews the pathophysiology, clinical signs and symptoms, diagnostic techniques, and treatment recommendations for extrapelvic endometriosis of the umbilicus, abdominal wall, thorax, and vulva [5].

**Results.** Abdominal wall endometriosis is frequently associated with a gynaecologic procedure such as Caesarean section, laparoscopy, or abdominal hysterectomy [6,7]. Caesarean section scar endometriosis is the most common abdominal wall endometriotic lesion and is located near or at the site of the surgical incision. It is estimated to occur in 0.03%–1.5% of women after Caesarean delivery [8]. Umbilical endometriosis is rare, estimated to occur in 0.5%–1.0% of all cases of endometriosis (Chamie, et al., 2018, Hirata, et al., 2020). Episiotomy endometriosis is even less common and is estimated to occur in 0.01%–0.06% of women after episiotomy (Chamie, et al., 2018, Hirata, et al., 2020). Scar endometriosis may be identified at transabdominal ultrasonography (TAS), computed tomography (CT), and magnetic resonance imaging (MRI) in patients who are symptomatic or asymptomatic [9]. The appearance of scar endometriosis at ultrasound, CT, or MRI depends on the phase of the patient's menstrual cycle, the chronicity of the process, the number of stromal and glandular elements, and the amount of bleeding and associated inflammation [10]. TAS is usually the first imaging examination performed to evaluate focal abdominal or inguinal wall thickening identified at clinical examination. TAS depicts the extent and nature of such focal lesions and is useful for establishing or excluding abdominal wall hernia. In women with a palpable anterior abdominal or pelvic wall abnormality, CT findings may help diagnose, exclude, or suggest the presence of a mass and define its extent and nature. CT may be performed with or without intravenous contrast material, although the use of contrast material improves its sensitivity and specificity. In younger patients, MRI is preferred because of its improved tissue characterisation and lack of ionizing radiation. CT and MRI may be used to diagnose or exclude alternative diagnoses in the anterior abdominal and pelvic wall, including hernia, abscess, hematoma from other causes, and other soft-tissue tumours (Chamie, et al., 2018,

Gidwaney, et al., 2012, Yarmish, et al., 2017).

Diagnosis of thoracic endometriosis syndrome (TES) is usually based on clinical grounds. Symptoms have a catamenial (cyclical) pattern, occurring between 24h before and 72h after the onset of menses, and typically recurring [11]. Thoracic endometriosis syndrome includes five well-recognised clinical entities grouped into two forms, namely the pleural form with catamenial pneumothorax, non-catamenial endometriosis-related pneumothorax, catamenial haemothorax, and the pulmonary form with catamenial haemoptysis and lung nodules [12].

Cyclic pain is the most common presenting symptom, and the diagnosis is usually made by histological confirmation. Additional imaging and endoscopic investigations specific to the location may also be used. MRI provides better contrast resolution than CT and TAS and is superior to CT for depicting the delineation between muscles and abdominal subcutaneous tissues and infiltration of abdominal wall structures. Diagnosis of thoracic endometriosis syndrome is challenging, as these women's symptoms may not immediately be attributed to endometriosis, MRI technique provides a good diagnostic accuracy. As there were no comparative studies identified that compared different imaging modalities, we are unable to determine which imaging tool is optimal for abdominal or thoracic disease.

Clinicians should be aware of symptoms of extrapelvic endometriosis, such as cyclical shoulder pain, cyclical spontaneous pneumothorax, cyclical cough, or nodules which enlarge during menses. It is advisable to discuss diagnosis and management of extrapelvic endometriosis in a multidisciplinary team in a centre with sufficient expertise.

Treatment of extrapelvic endometriosis of the abdominal wall, the umbilicus or the inguinal region will depend on the location of the lesions. If complete excision is possible, this is the treatment of choice; when this is not possible, long-term medical treatment is necessary [13]. The principles of medical treatment for pelvic endometriosis will similarly apply for extragenital endometriosis.

Hormone treatment (OCP or GnRH agonist) has been shown to be effective in a significant proportion of patients, although with high recurrence rates. In cases of recurrent pneumothorax or haemothorax, chemical pleurodesis, pleural abrasion or pleurectomy may be helpful. Persistent haemoptysis due to parenchymal lesions may be treated by lobectomy or segmentectomy.

When a patient does not want to undergo thoracic surgery or only incomplete resection is expected, in case of catamenial pneumothorax, a bilateral salpingo-oophorectomy (BSO) may be considered in absence of future fertility plans (Keckstein, et al., 2020).

For abdominal extrapelvic endometriosis, surgical removal is the preferred treatment when possible, to relieve symptoms. Hormone treatment may also be an option when surgery is not possible or acceptable. For thoracic endometriosis, hormone treatment can be offered. If surgery is indicated, it should be performed in a multidisciplinary manner involving a thoracic surgeon and/or other relevant specialists.

**Conclusion.** ESHRE Endometriosis Guideline offers us a modern view on extrapelvic endometriosis. This chapter of guideline describes the possible types of extragenital endometriosis and the most effective ways to treat them. The aim of clinical practice guidelines is to aid healthcare professionals in everyday clinical decisions about appropriate and effective care of their patients.

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