

# Chronic pelvic pain in women

- practical guideline – short version

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# 1 Methods

The following sources have been used for the literature search:

- 1966 to August 2007: Medline
- To November 2001: Psychlit/Psyndex
- 1983-2007: Annals of the German Society for Psychosomatic Gynaecology and Obstetrics

The search term used was chronic pelvic pain. Additional key words were used to prepare special chapters. In addition, the references cited in the publications found were browsed and relevant publications included in the analysis. The national guidelines of international gynaecological and obstetric societies were also taken into account. For a comprehensive description of the methodology, cf. methodology report.

## 2 Definition

### 2.1 Introduction

The fundamental problem in the analysis of chronic pelvic pain is to assign an unambiguous diagnosis to the symptom of persistent pain in the pelvic pain area. The difficulty is that the physical and psychological factors must be seen in combination and on a case-by-case basis.

### 2.2 Definition

There is currently no standardised international definition of chronic pelvic pain (CPP). This is due to the complexity of the syndrome with its varying symptoms depending on the underlying cause.

At the same time, there is the fundamental difficulty of arriving at a clear diagnosis on the basis of the symptom: "persistent pain in the pelvic area".

Since both physical and psychological aspects must be included in the definition in this text, the following definition is used although there is no ICD-10 or DSM IV classification for the disease:

**Chronic pelvic pain in women is a persistent, severe and distressing pain lasting at least 6 months. It may occur cyclically, intermittently/situationally or chronically. It leads to a marked reduction in quality of life. In some patients, physical changes/disorders can be regarded as the main cause, in others, the pain seems to be mainly caused by emotional conflict and psychosocial stress.**

It is assumed that 60-80% of patients with chronic pelvic pain meet the diagnostic criteria of persistent somatoform pain disorder of ICD 10 (F 45.4).

### **3 Codes**

Chronic pelvic pain can be encoded as follows on the basis of the underlying somatic and psychosocial causes according to the ICD 10 classification: For chronic pelvic pain with medical causes, the codes "peritoneal adhesions in the female pelvis" (N 73.6), "inflammatory diseases of the female pelvis" (N73.9) or "endometriosis" (N80) apply. Possible psychological factors and behavioural influences (F54) or psychological comorbidities should be encoded additionally. Psychological disorders with the cardinal symptom of chronic pelvic pain with no underlying medical cause should be encoded as psychological diagnoses such as "persistent somatoform pain disorder" (F45.4) or "somatisation disorder" (F45.0). Diagnoses from other disciplines which may contribute to chronic pelvic pain such as "irritable bowel syndrome" (K58), fibromyalgia (M79.7) or interstitial cystitis (N30.2) should be encoded additionally.

### **4 Epidemiology**

There is currently no general international definition of chronic pelvic pain in women (see Chapter 2). Therefore, it is difficult to estimate its prevalence. In an epidemiological study, the WHO has for the first time performed a comprehensive international literature search to collect data on the international prevalence of chronic pelvic pain (1).

In the US literature, it is assumed that 15% of all women are affected by chronic pelvic pain and that around 10% of all patients presenting to their gynaecologist do so because of such disorders (2-6).

For Europe and Germany, the data on prevalence are scarce (7-10).

No reliable epidemiological data are available for Germany at the moment. The only prevalence study on chronic pelvic pain in Germany so far has found an age-associated frequency of 12% and an even higher frequency in young patients (11).

The data on the prevalence and incidence of chronic pelvic pain are inadequate, and further targeted prospective epidemiological studies are

required. However, it is assumed that the prevalence is actually far higher than has been determined by the studies so far.

## **5 Pathophysiology**

The following risk factors for a somatoform pain disorder have been identified: Stressful experiences in childhood, especially caused by emotional neglect, psychological disease suffered by both parents (alcohol, depression, psychosis), poverty and violent experiences leading to an insecure and disorganised bonding type. For the development of a somatoform pain disorder, these results are well-established. This model of chronification can be applied quite reliably to chronic pelvic pain. Attachment theory also provides a model for the development of chronic pain. For this reason, a multimodal approach including several different factors is becoming increasingly popular.

For chronic pelvic pain, no studies concerning neural plasticity exist along the lines of those regarding the chronification of back pain (12). However, it is assumed that as part of the development of chronic pain, the nervous system with its receptors is influenced among other factors by chemical and inflammatory mediators as well as hormones (13; 14).

### **5.1 The significance of cytokines**

The significance of cytokines in chronic female pelvic pain is unclear. There are only a small number of studies with sometimes contradictory results (17-19).

### **5.2 The significance of prostaglandins**

The significance of prostaglandins in chronic female pelvic pain is unclear. There are only a small number of studies with sometimes contradictory results (17-19).

### **5.3 The significance of the neurokinin Substance P and CGRP**

Substance P and CGRP (calcitonin-gene-related peptide) have been suspected to be important inflammation mediators (20). Another potential cause of chronic pelvic pain is a special way of processing sensitive afferences in the spinal chord as well as in the cortex (21; 22).

### **5.4 The significance of endocrinological factors**

Endocrinological changes have also been considered as a pathophysiological mechanism underlying the disorder (23; 24). The results showed only a partial match.

## 5.5 The significance of gender-related differences

It is assumed that there are gender-related differences in pain reception. This phenomenon has been shown by positron emission tomography (PET) in patients with irritable bowel syndrome (25-27).

## 6 Causes and findings

### 6.1 Risk factors

As part of the WHO survey on the prevalence of chronic pelvic pain (1), the authors have carried out a meta-analysis of all studies concerning risk factors for chronic pelvic pain (28).

The meta-analysis has shown an increased risk of developing non-cyclic chronic pelvic pain if the following factors are present: prolonged bleeding, confirmed endometriosis, pelvic inflammatory disease, adhesions, history of cesarian section, history of abortion, physical or sexual abuse in childhood, sexual abuse in adulthood, alcohol and drug abuse, fear, depression, hysteria and somatisation disorders.

However, there is no association with the following factors: educational level, employment/unemployment, marital status, parity, duration of cycle, history of abortion, sterilisation, infertility, pelvic varicosis and various psychological symptoms and diseases. The order in which these factors are mentioned is random.

### 6.2 Overview

**Table 1: Possible causes and findings in the context of chronic pelvic pain adapted from (29; 30)**

Gynaecological diseases	Endometriosis/adenomyosis
	Malignant gynaecological diseases
	Pelvic inflammatory disease and its consequences (PID)
	Ovarian retention syndrome/ovarian remnant syndrome (residual ovary syndrome)
	Adhesions
	Leiomyomas
	Cervical stenosis (31) with haematometra
	Dysmenorrhea
	Ovulation pain

	Deformities (e.g. accessory ovaries, uterus duplex (32))
	Venous congestion in the small pelvis (pelvic varicosis)
Urological diseases	Interstitial cystitis
	Urethral syndrome (33)
	Malignant urological diseases
	Bladder function disorders
	Chronic inflammatory urinary tract
	Urolithiasis
Gastrointestinal diseases	Irritable bowel syndrome
	Chronic obstipation
	Chronic-inflammatory intestinal diseases
	Malignant intestinal diseases
	Stenosis of the small or large intestine
	Chronic intestinal pseudoobstruction
Diseases of the musculoskeletal system and of connective tissue	Fibromyalgia (34)
	Myofascial pain, trigger points (35)
	Chronic back pain
	Neuralgia/neuropathic pain syndrome (36)
	Dysfunction of the pelvic floor
	Scar pain
	Malignant diseases of the musculoskeletal system and of connective tissue
	Nerve compression syndroms
	Hernia (37)
Psychological disorders	Somatoform disorders
	Adaptation disorders
	Schizophrenic, schizotypal and delusional disorders

### 6.3 Gynaecological causes and findings

#### 6.3.1 Endometriosis

Endometriosis is a clinically relevant disease with a proven correlation between the pathological finding and the pain symptoms. A third of the women undergoing laparoscopy for pelvic pain showed endometriotic nodules (38) (LOE 3a). Some women with confirmed endometriosis do not show symptoms. The extent of the disease does not necessarily correlate with the degree of the complaints (39) (LOE2b) even though there is some literature describing such a correlation (40-42) (LOE 2b).

Hurd et al postulated three criteria indicating that the chronic pelvic pain is caused by endometriosis.

- 1 The pain occurs cyclically.
- 2 There is a surgical confirmation.
- 3 Medical and/or surgical therapy improves the symptoms (43) (LOE 5).

Due to the wide visual spectrum of peritoneal changes, a case of suspected endometriosis must always be confirmed histologically in order to exclude other diseases (38; 44-47) (LOE 2b).

Adenomyosis uteri has a special status since its clinical symptoms are dysmenorrhea, hypermenorrhea, acyclic bleeding and infertility (46).

### **6.3.2 Adhesions; pelvic inflammatory disease (PID)**

The role of adhesions in the development of pain is unclear and being discussed controversially (44; 48; 49) (LOE 5).

Adhesions are found in 36% of the patients with chronic pelvic pain, but also in 15% of women with no history of pain. There is no difference in the degree and localisation between both groups (50; 51), and it is pure speculation whether the traction and tension associated with adhesions activate peritoneal pain receptors (52) (LOE 3b).

Nevertheless, many studies show an improvement or at least no deterioration of the symptoms after complete or partial adhesiolysis (53-66) (LOE 2b).

### **6.3.3 Pelvic varicosis**

Although pelvic varicosis has been described as a possible cause of the pain, no scientific pathophysiological explanation has so far been found for the correlation between varicosis and the development of pain (67-72) (LOE 4). In Germany, the concept of pelvic varicosis is of minor significance.

### **6.3.4 Ovarian retention syndrome/ovarian remnant syndrome**

It is still unclear and rather doubtful whether remnants of ovarian tissue after hysterectomy or adnexal removal play a role in pelvic pain since only retrospective studies are available so far (73-76) (LOE 2b).

## **6.4 Other somatic causes**

### **6.4.1 Irritable bowel syndrome**

A recent systematic review (77) showed that chronic pelvic pain and irritable bowel syndrome have much in common (epidemiology, psychosocial

factors). The irritable bowel syndrome (IBS) is characterised by chronic abdominal pain and defecation disorders with no evidence of structural intestinal defects or biochemical deviations which could explain the symptoms. Apart from negative results of a diagnosis by exclusion (blood and faecal examination, ileocoloscopy), an IBS diagnosis is based on symptoms which must persist for a certain period. Recurrent abdominal pain or discomfort on at least three days per month in the last three months must be accompanied by at least two of the following symptoms:

1. Reduction of the complaints after bowel movement
2. Onset of complaints when frequency of bowel movements changes
3. Onset of complaints when faecal consistency changes

#### **6.4.2 Bladder pain syndrome/interstitial cystitis**

Patients with chronic pelvic pain often complain about painful micturition. This is often misinterpreted as a urinary tract infection. Apart from urological diseases (stones, anatomical changes), the bladder pain syndrome (BPS) and one of its subforms, interstitial cystitis (IC) should be considered as possible causes (78; 79).

The European Society for the Study of IC/BPS (ESSIC) defines the bladder pain syndrome as chronic pelvic pain or a feeling of pressure or discomfort which is perceived as relating to the bladder. The bladder pain syndrome is accompanied by at least one further urinary tract symptom such as persistent urgency or increased micturition frequency. Other possible diseases causing similar symptoms must be excluded. The bladder pain syndrome can be classified using hydrodistension findings and morphological changes in bladder biopsies (80). A urination log is absolutely indispensable to record and assess the extent of the pollakisuria. Further examinations (cystoscopy, hydrodistension under anaesthesia, histomorphological examination of the mucosa of the bladder) are useful for differential diagnosis, but not absolutely indispensable. The same is true for the potassium instillation test. The prevalence of the bladder pain syndrome in the general population is estimated at 10-25% (78; 81-83).

### **Statement**

*The bladder pain syndrome plays a key role in chronic pelvic pain. It should be considered as a cause/contributing factor in chronic pelvic pain.*

#### **6.4.2 Myofascial pain syndromes**

Myofascial causes of pain are found in many patients with chronic pelvic pain. In these patients, the trigger points are located mostly in the area of the

muscles of the anterior abdominal wall or of the pelvic floor. A trigger point often results from tissue injury, e.g. a Pfannenstiel incision or an episiotomy.

### **6.4.3 Fibromyalgia syndrome**

The fibromyalgia syndrome (FMS) is defined as chronic pain (> three months) in several regions

- axial skeleton (cervical spine or anterior chest or thoracic spine or lumbar spine and
- right or left half of the body and
- above and below the waist

As well as the painful palpation of at least 11/18 tender points (84). Chronic pelvic pain can be a symptom of FMS. An association between FMS and CPP has been described for up to 20% of patients (85).

## **6.5 Psychosocial causes**

### **6.5.1 Psychological factors**

There seems to be an increasing trend to interpret psychopathological disorders as a response to chronic pelvic pain rather than as a cause of it (86; 87).

However, articles are published on a regular basis describing psychological findings in patients with chronic pelvic pain (88).

In a meta-analysis by the WHO, a statistically significant correlation was found between depression and chronic pelvic pain (28). However, there are also studies in which depression could not be identified as a risk factor for the development of chronic pelvic pain (23).

Last but not least, a history of alcohol or drug abuse also appears to be a possible cause of chronic pelvic pain (28; 89; 93).

In another study, Walker et al. investigated mechanisms of coping with chronic pelvic pain (97). They suggested that CPP patients are more prone to dissociation.

To summarise, we can say that the research into psychological morbidity is problematic. Many studies are methodologically flawed (98-100).

## **Statement**

*Many patients have a comorbidity with psychological factors such as anxiety disorders, substance abuse or depressive disorders.*

### **6.5.2 Social factors**

The relevance of social and especially socioeconomic factors in the genesis of chronic pelvic pain has been examined in some epidemiological studies (29; 101). Demographic studies showed no link with age, race or ethnicity and family or employment status (2; 9; 28; 102). Roth et al. (102) found a correlation between a lower educational level and stronger pain, "worrying", emotional suffering and functional impairment. They found no difference regarding duration of pain and depressive symptoms. Beard et al. noticed a higher number of diseases and deaths in the families of patients with chronic pelvic pain (68). The WHO meta-analysis showed no association with social factors (1).

### **Statement**

*No unambiguous correlation between social factors and chronic pelvic pain has been proven.*

### **6.5.3 Physical and sexual abuse**

Many studies have revealed that 40-60% of patients with chronic pelvic pain reported that they had experienced physical and/or sexual violence. In most cases, the somatic work-up showed no organic correlate for the pain symptoms (29; 89; 93; 94; 103-108) but there was a comorbidity with psychosomatic/psychiatric diseases such as depressive symptoms, anxiety, somatisation disorders and even symptoms of a posttraumatic stress disorder. There was also a group of patients who were operated on without a clearly defined indication. Clinical experience also shows that women with manifest endometriosis whose severe pain cannot be sufficiently relieved report on a history of abuse and violence.

A prospective study examined children who had experienced violence (109). It found no increase in the occurrence of unexplained pain syndromes. We have to point out, however, that by including the children in the study, the abuse and violence were brought out to the open, the taboo was removed and the abuse was thereby stopped. This is certainly a key factor protecting the patient from developing a chronic pain symptom. Women who still developed a pain syndrome later showed a pronounced inability to control the memories of their violent experiences.

On one hand, there is clear evidence of a link between the pain and an experience of violence and sexual abuse, but on the other, some facts cannot yet be evaluated conclusively. The clinical relevance is controversial.

### **6.5.4 The influence of the doctor-patient relationship**

The challenge of building a robust and effective doctor-patient relationship for chronic pelvic pain patients has been described in many publications. The challenge begins when no adequate morphological correlate is found for the pain symptoms. In most cases, the patient is convinced that there must be an organic cause due to her severe pain. The pain is often described with an extreme sense of urgency; patients pin all their hopes on the therapy. This can lead to a similar feeling of insecurity, frustration and insufficiency on the part of the doctor. The two sides are connected: As the patient communicates her pain, the doctor sees psychosomatic/psychiatric symptoms which are difficult to identify, and the challenge of the somatic/psychosomatic diagnostic workup is to fully appreciate both dimensions. This is often the starting point for the vicious circle of chronification.

Considering the frequently traumatic history of the patient, the doctor must respect her belief that there is an organic cause, that there is a dysfunctional interaction regarding the pain phenomenon and that the patient rejects the idea that emotions may have contributed to causing the disease. This attitude must be seen as having a protective and stabilising function. Such attitude can ease the burden on the physician and lead to a doctor-patient relationship in which the patient feels she is understood and taken seriously. This is necessary if the doctor wants to exert a reassuring influence and convey the ideas of the bio-psycho-social model. This would certainly improve the outpatient therapy of chronic pelvic pain.

## **7 Diagnosis**

### **7.1 Preface**

In female chronic pelvic pain, it can be beneficial to make therapeutic use of the diagnostic situation. Taking the patient's history is the key link between diagnosis and therapy. This discussion about the patient's history can be used to explain some psychosomatic factors to the patient as part of basic psychosomatic care.

### ***Statement***

*A good doctor-patient relationship is the prerequisite for the early detection of a psychosomatic factor. The doctor should be sufficiently familiar with the complexity of the disease.*

### **7.2 Basic gynaecological diagnosis**

#### **7.2.1 Patient history**

Taking the patient history should be a comprehensive and detailed process. The following aspects of pain perception should be addressed (29; 110):

- Pain locations (using the pain sketch by the DGSS (German society for research into pain))
- Pain intensity (visual analog scale (VAS))
- Pain duration
- Pain quality
- When do the symptoms occur?
- Are they linked to the menstrual cycle?
- When did the symptoms occur for the first time?
- How do they affect the patient's quality of life (partnership, sexuality, work, leisure)
- Subjective disease theory

It is helpful to use a pain sketch and to ask specific questions about further pain syndromes (e.g. head and back pain). Keeping a pain calendar for a limited period can help making the diagnosis (111).

Apart from asking about the pain, the other usual questions about previous diseases and operations, systemic diseases, diseases in the family and about the social environment of the patient should also be asked. In addition, special risk factors for the occurrence of chronic pelvic pain should be explored (see Chapter 4.1).

Special emphasis in the context of patient history should be placed on the experience of violence, substance abuse and signs of a depressive disease (6). If the patient complains about further chronic disorders such as headaches, sleeping disorders, vertigo or back pain, this may indicate a somatisation disorder (112). However, we cannot currently recommend the use of special personality tests and psychiatric questionnaires. There is no validated screening tool available for the diagnosis of chronic pelvic pain. If a somatisation disorder is suspected, a psychological or psychiatric intervention should be considered at an early stage (90, 91).

### **Statement**

*A comprehensive patient history is indispensable. The patient should be asked actively about further concomitant symptoms and impairments.*

*Psychological diagnosis should be based on the principles of conducting interviews in basic psychosomatic care.*

### **Statement**

*A pelvic examination should always be part of the diagnostic work-up.*

### **Statement**

*Chemical laboratory examinations should be carried out to exclude inflammatory processes. They should include leukocytes, CRP and a urinary status.*

### **7.3 Invasive diagnostic work-up**

#### **7.3.1 Diagnostic laparoscopy**

Up to 40% of the diagnostic laparoscopies are based on the indication “chronic pelvic pain”. In many studies, the laparoscopic diagnosis correlated with a previous abnormal clinical finding (113; 114).

It can be very difficult to decide whether a pathological intraoperative finding is in fact the cause of a corresponding symptom since there is no evidence for a direct correlation between the intraoperative finding and the intensity of the pain in some diseases (e.g. endometriosis).

“Pain mapping” has not yet been proven to be effective and reproducible; it must be regarded as experimental (115-117).

Generally speaking, laparoscopy is an important step in the work-up of chronic pelvic pain (118). It is particularly indicated if there is a clinical suspicion of a relevant intraabdominal pathology such as endometriosis or a tumour. One crucial advantage is the possibility to immediately proceed to surgical therapy in the same session if a morphological abnormality is found and if the patient is properly prepared.

#### **Statement**

*On the whole, laparoscopy is a useful diagnostic method. However, it only allows for intraperitoneal diagnosis. Retroperitoneal diseases cannot be detected in the same way.*

#### **7.3.2 Additional surgical diagnosis**

Special surgical diagnostic steps should be reserved to more specific questions. In the context of studies on chronic interstitial cystitis, some authors recommend to routinely combine laparoscopy with cystoscopy. This view is controversial (119).

#### **Statement**

*Special surgical diagnostic measures are reserved for more specific questions but should not be used for routine cases.*

### **7.4 Diagnostic imaging**

### Sonography

Vaginal sonography is the most common imaging technique. A normal sonographic finding is only associated with a somatic finding on laparoscopy in 20% of cases and with an organic diagnosis in rare cases (120; 121). A vaginal sonography should be part of the gynaecological examination. Any findings must always be challenged with respect to their relevance for the genesis of pain.

### Computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET)

CT, MRI and PET are reserved to special investigations and have no relevance for routine diagnosis.

## **8 Therapy**

### **8.1 Basic psychosomatic care**

All forms of diagnosis and therapy are embedded in the doctor-patient relationship. The bio-psycho-social model forms the basis of any therapeutic approach (conversational therapy, surgical therapy, drug treatment). The goal is to determine the extent to which the pain is influenced by psychological factors or whether there is a psychological comorbidity.

If the primary care physician refers the patient to a specialised centre, it must be ensured that he/she is involved in the further planning and provision of therapy. In general, the primary care physician provides the long-term, reliable and stabilising doctor-patient relationship which must be seen as the prerequisite for successful treatment.

Throughout the therapy, huge challenges can arise for everyone involved in terms of time management, setbacks and frustration. Often, subconscious emotions are triggered which can have a serious impact on the doctor-patient relationship and, in extreme cases, result in negligent diagnosis or therapy and even cause an unjustified invasive intervention.

### **8.2 Psychotherapeutic approaches**

The fact that psychosomatic factors are of crucial importance in chronic pelvic pain has been confirmed by studies. In order to fully reflect the psychosomatic dimension of chronic pelvic pain and arrive at a proper diagnosis, interdisciplinary therapy and full motivation of the patient, psychosomatic knowledge and experience are required on the part of the treatment provider. If the doctor's whole attitude reflects the bio-psycho-social model, he/she can counteract an early fixation or chronification of the pelvic pain. The literature on this subject includes empirical studies or

multimodal treatment concepts. In a randomised placebo-controlled study (123), patients with pelvic varicosis experienced significant pain relief by progesterone and improved again by concomitant psychotherapy. In the placebo-controlled group, psychotherapy also produced a pain reduction. Peters et al. (64) compared a group receiving gynaecological standard therapy with a multidisciplinary therapy concept. This concept included psychosomatic or psychological-psychiatric factors and showed statistically significant improved therapy effects. A group therapy performed by Albert et al. (124) caused a reduction in pain, analgesics consumption and visits to the doctor as well as an increase in work activity.

The prerequisite for a successful therapy is a robust and stabilising doctor-patient relationship in which the doctor can communicate the bio-psycho-social aspects to the patient in an atmosphere of trust so that she understands the underlying factors and learns to accept the support given by the doctor in psychosocial stress situations (125-128). Under these circumstances, multidisciplinary treatment concepts including psychotherapeutic measures could be established much more successfully.

### **8.2.1 Mensendieck somatocognitive therapy**

Women with chronic pelvic pain experience changes in their body image (129). In a controlled randomised study, somatocognitive treatment based on Mensendieck was performed in parallel with gynaecological therapy. The result was an improvement in motor function and a significant reduction in the pain score (130).

### **8.3 Drug therapy**

In view of the very diverse causes of chronic pelvic pain, the therapy recommendations are essentially no different from other pharmacological therapies (6). If no likely cause can be diagnosed, a US expert panel (4) recommends the empirical use of non-steroidal analgesics, oral contraceptives, spasmolytics or, in rare cases, antibiotics. In the case of endometriosis, the administration of GnRH analogues can lead to pain relief.

#### **8.3.1 Analgesics**

There are no controlled studies showing the effective therapy of chronic pelvic pain with COX2 inhibitors, non-steroidal analgesics, paracetamol, metamizol or morphine derivatives. Therefore, we cannot give a clear recommendation to use these substance groups.

#### **8.3.2 Antidepressants**

The use of antidepressants in the context of chronic pelvic pain can be based on various diagnoses: Comorbidity with anxiety and depression, somatisation disorders and superimposition by psychological factors. Publications on the effectiveness of drug-based antidepressive therapies are mainly limited to empirical data or case reports (131-133). The evidence based on these studies is very unreliable since no differential diagnostic distinction was made between the psychosomatic/psychiatric components of the chronic pelvic pain. If possible, antidepressants should be used to treat the specific disorder, but their empirical use may also be justified (134) since this may improve the patient's quality of life (135).

Austrian studies have shown significant pain relief under amitriptylin (136), gabapentin or amitriptylin combined with gabapentin.

### **8.3.3 Other drug-based therapies**

No significant improvement resulted from lofexidine hydrochloride (alpha2-adrenoceptor agonist) in a placebo-controlled study (137). For hormone therapies, see Chapter 8.4.

## **8.4 Surgical therapy**

### **8.4.1 Surgical therapy in the presence of a clinical correlate for the chronic pelvic pain**

Minimally invasive surgery/laparoscopy is recommended as the therapy of choice in the surgical treatment of the causes of chronic pelvic pain although it must be borne in mind that data concerning defined measures are limited.

In particular, the pros and cons of repeat laparoscopy must be weighed up critically.

#### Adhesiolysis

Despite the controversial views on complete or partial adhesiolysis, there are numerous studies on the effectiveness of such a procedure. Reports in literature range between no effect on pain and 88% postoperative freedom from pain (57; 65; 66; 138-141) (LOE 2b). In terms of the method, laparoscopy should be preferred since the success rate of a laparotomic method may be lower (142) (LOE 1b).

#### Hysterectomy

Hysterectomy is a radical therapeutic option to be used only in cases of manifest organic change after consideration of all histological, psychological and social factors.

Although the data on hysterectomy for chronic pelvic pain is limited, it appears that it leads to permanent pain reduction in 70 to 90% of the cases (29; 143-145) (LOE 2b). Hysterectomy can also be recommended for women with uterine adenomyosis or symptomatic uterus myomatosus (46).

For the difficulties in the preoperative diagnosis of adenomyosis uteri, we refer to the DGGG guideline on endometriosis.

#### **8.4.2 Surgical intervention to influence pain transmission**

Presacral neurectomy, laparoscopic uterine nerve ablation (LUNA), neuromodulation and neurolysis are used in order to alleviate the chronic pelvic pain by influencing pain transmission. However, since only empirical data are available which do not allow for an evaluation of these methods, they should be regarded as experimental and not be used in routine cases (323-337; 102; 285; 323-325; 321) (LOE 3b).

### **8.5 Therapy of specific diseases**

#### **8.5.1 Endometriosis**

In the following, we shall just give a short overview of the diagnosis and therapy of endometriosis. For a comprehensive discussion of the topic, we refer to the current interdisciplinary S2k guideline of the German Society for Gynaecology and Obstetrics (015/045) (46).

##### Drug-based therapy of endometriosis

One specific way of treating endometriosis-associated pain is by creating an acyclic hormonal status, i.e. by inducing a therapeutic amenorrhea. The other, non-specific way is to administer analgesics (46).

By suppressing the ovarian function, a regression of endometriotic implants can be achieved. For this purpose, GnRH analogues are more effective than oral contraceptives and progestins (146) (LOE 1b), which can also improve the endometriosis-associated pain but have different side-effects (147-149) (LOE 1a). As a rule, the GnRHs are administered for 6 months. If the therapy is discontinued after three months, the effect on pain is the same, but the relapse-free interval will be shorter (150; 151) (LOE 1b). If a long-term therapy with GnRHs is applied, concurrent bone protection medication is indicated. Alternatively, endometriosis-associated pain can be reduced by applying an IUD releasing levonorgestrel (152) (LOE 2b).

Non-steroidal antiphlogistics can be used non-specifically to treat endometriosis-associated pain (153) (LOE 1b).

##### Surgical therapy for endometriosis

The complete surgical removal of implants or endometriotic manifestations from the affected organs is currently regarded as the therapy of choice for symptomatic endometriosis (46; 154; 155) (LOE 1b, LOE 1a).

However, a trade-off is often necessary for women with a wish for children since this presupposes the preservation of the genital organs so that it is impossible to perform a complete resection which would be desirable to treat the disease. In such a patient, the operation must be less radical than would be possible otherwise (46).

In literature, various figures have been published regarding the relapse frequency of endometriosis and the associated pain. They range from 15 to 100% (29; 156; 157).

### **8.5.2 Fibromyalgia**

We refer to an interdisciplinary S3 guideline (158) (041/004). We strongly recommend aerobic endurance training, cognitive behaviour therapy, multimodal therapy and the administration of amitriptylin (LOE 1a).

### **8.5.3 Irritable bowel disease**

We refer to the current guideline of the British Society for Gastroenterology ([www.bsg.org.uk/pdf\\_word\\_docs/man\\_ibd.pdf](http://www.bsg.org.uk/pdf_word_docs/man_ibd.pdf) (external link)) and of the British National Institute for Health and Clinical Excellence (NICE) ([www.nice.org.uk/nicemedia/pdf/CG061NICEGuidelineWord.doc](http://www.nice.org.uk/nicemedia/pdf/CG061NICEGuidelineWord.doc)(external link)) (159).

### **8.5.4 Musculoskeletal pain**

Trigger point injections with local anaesthetics can lead to sustained pain relief (LOE 2c).The digital extension of painful structures in the pelvic floor area can lead to a short-term reduction in pain (LOE 2b).

## **8.6 Multimodal treatment concept**

Many authors are now calling for a multimodal treatment concept (64; 90; 160-172). It is assumed that treating the patients purely somatically reaffirms the patients in their view that the symptoms have a purely somatic cause. This makes it more difficult to implement psychosomatic treatment concepts (91).

Multimodal pain therapy according to the German operations and procedures code OPS 8-918.x requires an interdisciplinary diagnostic work-up (173).

## **Statement**

*The therapy of chronic pelvic pain requires a customised treatment strategy. A multimodal concept should include psychosomatic therapy aspects.*

## **Prevention**

Preventive concepts should include:

Basic psychosomatic care, early implementation of psychosomatic ideas, no superfluous drug therapies and surgical interventions, training and further training for doctors, the possibility of supervision and Balint groups for doctors.

## 10 Literature

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## Consensus process:

For methods of consensus-finding for guidelines, see [method report](#).

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