

CHRONIC PELVIC PAIN

Chronic pelvic pain (CPP) is defined by the American College of Obstetricians and Gynecologists (ACOG) as noncyclical pelvic pain of at least 3 months duration or cyclic pain of 6-month duration, either of which interferes with one's normal activities of daily living.

Consideration should be given to gynaecologic aetiologies of pain such as endometriosis, adenomyosis, pelvic adhesions, pelvic inflammatory disease, tubo-ovarian abscess, ovarian cysts, ovarian neoplasms, polyps, fibroids and pelvic venous congestion in addition to nongynaecologic causes such as gastrointestinal sources, urologic sources, fibromyalgia, and psychological (including depression).

HISTORY

The patient should be asked about age at menarche, menstrual pattern, onset and character of menstrual cramps and other menstruation-associated symptoms, chronology of the pain, response to analgesic medication or other therapies, aggravating or relieving factors, sexual activity, sexual abuse history, contraception, condom use, history of sexually transmitted diseases, vaginal discharge, school performance and school/work absenteeism, and family history of menstrual disorders (in particular, endometriosis in first-degree relatives). Psychological aspects of dysmenorrhea as well as psychological sequelae of chronic pelvic pain should be explored. Other symptoms (GIT, GUT etc) as well as previous medical history should be asked about. Some of the history may need to be done with the adolescent alone remembering issues of confidentiality.

EXAMINATION

The abdomen and back should be examined. An internal pelvic examination is not necessary if the patient has never been sexually active, and if the history suggests primary dysmenorrhea (consider examination of the external genitalia, urethra and hymen to rule out vaginal discharge, hydrometrocolpos etc). Because of the risk of pelvic inflammatory disease, a pelvic examination should be performed in a sexually active adolescent who develops new-onset or more severe dysmenorrhea, after consultation with a gynaecologist or the Child Protection Unit. Pelvic and rectal examinations should be performed in adolescents with a history suggestive of secondary dysmenorrhea. Endometriosis is commonly associated with adnexal, uterine, or rectovaginal tenderness on pelvic examination.

INVESTIGATIONS

Specific tests may be indicated after history and examination such as FBC, BHCG, vaginal swabs and urinalysis. Imaging may include US and MRI if warranted by the history and examination. Occasionally laparoscopy may be needed.

CAUSES OF CHRONIC PELVIC PAIN IN CHILDREN AND ADOLESCENTS

DYSMENORRHOEA

The most common cause of CPP in adolescents is primary dysmenorrhoea (see **dysmenorrhoea fact sheet**). Secondary dysmenorrhoea is much less common but

should be considered if there is midcycle pain, dyspareunia or metorrhagia. The most common cause of secondary dysmenorrhoea is endometriosis.

ENDOMETRIOSIS

Endometriosis is defined as the presence and growth of uterine glands and stroma outside the uterine cavity. The majority of endometriosis implants are located in the pelvis, with the ovaries being the most common site. Other common sites of endometriosis include the pelvic peritoneum, anterior and posterior cul-de-sac, uterosacral ligaments, pelvic lymph nodes, cervix, uterus, vagina, vulva, rectosigmoid colon, and appendix. Rare sites of implantation include the umbilicus, surgical scars, bladder, kidneys, lungs, and extremities. The incidence of endometriosis in adolescents has been reported to be between 45% and 70% in a referral population presenting with chronic pelvic pain. It has been reported in premenarchal girls as young as 10 years of age. The risk is higher if there is a first degree relative with endometriosis.

Adolescents can present with either acyclic or cyclic pelvic pain, as opposed to adult women who typically present with cyclical pain. Dysmenorrhea, abnormal uterine bleeding (with concomitant cramping), and deep dyspareunia are other common presenting symptoms. Gastrointestinal symptoms such as abdominal pain, nausea, diarrhoea, and constipation, as well as bladder symptoms, may also be present. The definitive diagnosis is surgical and histological. The severity of symptoms does not always correlate with the extent of disease for reasons that are not yet known.

Initial medical treatment for endometriosis consists of low-dose, monophasic oral contraceptives given in a noncyclical fashion and can be trialled before laparoscopy is undertaken. The goals are to avoid endometrial proliferation, and to prevent endometrial implants from bleeding. It is the endometrial implants that cause the pain, scarring, and infertility associated with endometriosis. Management in patients refractory to noncyclical OCP treatment is laparoscopy then consideration of gonadotropin-releasing hormone (GnRH) agonist or Mirena (progestin IUD).

Choice of OCP

In general an OCP containing a lower dose of estrogen should be tried first but may need to be changed to one with higher doses if symptoms are not controlled. If cost is not an issue Yasmine and the newer Yaz are good choices. Cheaper options are Levelin. Avoid levonorgestrol (ie Diane) if a mood disorder is present or suspected. Use forms such as Marvelon, Yasmine, Vallete, or Femoden instead.

PELVIC INFLAMMATORY DISEASE

PID refers to an acute infection of the upper genital tract structures in women, involving any or all of the uterus, oviducts, and ovaries as well as other pelvic organs such as bowel. PID is a community-acquired infection initiated by a sexually transmitted agent. Adolescents are at particular risk for several reasons. First, physiologically they have lower levels of protective antibodies due to a lack of exposure to pathogens, cervical ectopy, and a higher prevalence of N. gonorrhoea and C. trachomatis in the younger population. Secondly, adolescents demonstrate higher risk behaviour, for example, less consistent use of condoms or concurrent use of alcohol or drugs during sexual activity. In addition, the incidence of PID doubles in

young women with coitarche prior to 16 years old. The sequelae of PID include chronic pelvic pain, adhesions, tubal occlusion, and an increased risk of ectopic pregnancy.

REPRODUCTIVE TRACT ANOMALIES

In the adolescent age group a mullerian anomaly must also be considered. The patient may have a didelphic uterus with unilateral obstruction, resulting in pelvic pain that may or may not be cyclic. In particular, girls with an early onset of severe dysmenorrhea beginning with (or even before) menarche should be evaluated to rule out an obstructive or partially obstructive anomaly, such as longitudinal or transverse vaginal septum. In addition, an early age of presentation of endometriosis should raise suspicion of a genital outflow obstructive anomaly.

OVARIAN CYSTS AND TUMOURS

The period following the initiation of ovulation is associated with dysfunctional ovulation and ovarian cysts. Preovulatory follicles measuring less than two centimetres are commonly found in the adolescent. The majority of these 'functional cysts' will resolve after 2-3 cycles without any treatment even those up to 5 cm in size. OCPs do not influence this rate of regression. Ensure tumour markers are normal (BHCG, AFP, Ca125). For those that persist after several cycles a surgical diagnosis is warranted

Adolescents may present with cyclical pain, irregular menses, or dysmenorrhea. Weight loss, nausea, bloating, or a palpable mass could suggest a neoplasm. The most common ovarian tumour in young women is a mature teratoma. The sudden onset of acute abdominal pain could suggest ovarian torsion and is a surgical emergency. Ultrasonography is useful for the evaluation of a suspected mass as well as for observation of a mass over time and can assess ovarian blood flow if torsion is suspected.

PELVIC ADHESIONS

The role of adhesions in chronic pelvic pain is controversial. Pelvic adhesive disease is commonly detected at the time of surgical exploration of patients with chronic pelvic or abdominal pain. Pelvic adhesions can occur secondary to a previous operation; however, adolescents typically have an unremarkable past surgical history. Other more likely causes are acute or chronic pelvic infections, a ruptured appendix, or endometriosis. Though adhesions may play an etiologic role in chronic pelvic and/or abdominal pain, they do not always produce pain. Adhesions may be more likely to play an etiologic role when they limit the mobility of intra-peritoneal organs or when their location correlates with the location of the pain. Goldstein reported 89% of adolescents with pelvic pain and adhesions had improvement of symptoms after adhesiolysis.

PELVIC CONGESTION SYNDROME

Dilated pelvic veins have been observed in some women with CPP. Symptoms may include a dull aching pain as well as menstrual disorders. Vulvar varicosities may be associated. Pelvic venography, Doppler ultrasonography, laparoscopy and MRI have been used to diagnose pelvic congestion syndrome.

MUSCULOSKELETAL CAUSES OF CPP

Common problems include shortening and spasm of the psoas muscles, shortening of the abdominal muscles, and/or a general abnormal posture including increased lumbar lordosis and an anterior tilt of the pelvis. As pain increases, patients develop splinting and cessation of physical activities such as exercise. If left untreated, this musculoskeletal dysfunction may induce tissue damage that results in the development of trigger points. Trigger points are hyperirritable areas that are locally tender to palpation and can cause referred pain. Myofascial trigger points, also known as myofascial pain syndromes, occur within taut bands of skeletal muscle. The subsequent referred pain may be visceral and can present as dysmenorrhea, dyspareunia, bladder or gastrointestinal symptoms.

GIT CAUSES OF CPP

Irritable bowel syndrome

The hallmark of IBS is abdominal pain or discomfort associated with a change in the consistency or frequency of stools and relieved by defecation. Patients may also complain of the passage of mucus or abdominal bloating. Symptoms can occur in clusters or individually, in addition to exhibiting variable frequency among patients. It has no structural, biochemical, or physiologic diagnostic markers and is a diagnosis of exclusion.

REFERENCES

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