Premenstrual syndrome

Clinical effects vary widely among patients and may include any combination of the following: behavioral—mild to severe personality changes, nervousness, hostility, irritability, agitation, sleep disturbances, fatigue, lethargy, and depression somatic—breast tenderness or swelling, abdominal tenderness or bloating, joint pain, headache, edema, diarrhea or constipation, and exacerbations of skin problems (such as acne or rashes), respiratory problems (such as asthma), or neurologic problems (such as seizures). PMS may need to be differentiated from premenstrual dysphoric disorder, which is a more severe form of PMS that's marked by severe depression, irritability, and tension before menstruation. (See Premenstrual dysphoric disorder.)

Dysmenorrhea

Dysmenorrhea produces sharp, intermittent, cramping, lower abdominal pain, which usually radiates to the back, thighs, groin, and vulva. Such pain—sometimes compared to labor pains—typically starts with or immediately before menstrual flow and peaks within 24 hours. Dysmenorrhea may also be associated with the characteristic signs and symptoms of premenstrual syndrome (urinary frequency, nausea, vomiting, diarrhea, headache, chills, abdominal bloating, painful breasts, depression, and irritability).

Vulvovaginitis

In trichomonal vaginitis, vaginal discharge is thin, bubbly, green-tinged, and malodorous. This infection causes marked irritation and itching, and urinary symptoms, such as burning and frequency. Candidal vaginitis produces a thick, white, cottage cheese-like discharge and red, edematous mucous membranes, with white flecks adhering to the vaginal wall, and is often accompanied by intense itching. G. vaginalis produces a gray, foul, “fishy” smelling discharge. Acute vulvitis causes a mild to severe inflammatory reaction, including edema, erythema, burning, and pruritus. Severe pain on urination and dyspareunia may necessitate immediate treatment. Herpes infection may cause painful ulceration or vesicle formation during the active phase.

Ovarian cysts

Small ovarian cysts (such as follicular cysts) usually don't produce symptoms unless torsion or rupture causes signs of an acute abdomen (vomiting, abdominal tenderness, distention, and rigidity). Large or multiple cysts may induce mild pelvic discomfort, low back pain, dyspareunia, or abnormal uterine bleeding secondary to a disturbed ovulatory pattern. Ovarian cysts with torsion induce acute abdominal pain similar to that of appendicitis. Granulosa-lutein cysts that appear early in pregnancy may grow as large as 2″ to 2½″ (5 to 6 cm) in diameter and produce unilateral pelvic discomfort and, if rupture occurs, massive intraperitoneal hemorrhage. In nonpregnant women, these cysts may cause delayed menses, followed by prolonged or irregular bleeding. Polycystic ovarian disease may also produce secondary amenorrhea, oligomenorrhea, or infertility.

Polycystic ovary syndrome

Signs and symptoms of PCOS include mild pelvic discomfort, lower back pain, and dyspareunia caused by multiple ovarian cysts, abnormal uterine bleeding secondary to disturbed ovulatory pattern, hirsutism and male-pattern hair loss that result from abnormal patterns of estrogen secretion, obesity caused by abnormal hormone regulation, and acne caused by excess sebum production that results from disturbed androgen secretion.

Endometriosis

The classic symptom of endometriosis is acquired dysmenorrhea, which may produce constant pain in the lower abdomen and in the vagina, posterior pelvis, and back. This pain usually begins from 5 to 7 days before menses reaches its peak and lasts for 2 to 3 days. It differs from primary dysmenorrheal pain, which is more cramplike and concentrated in the abdominal midline. However, the pain's severity doesn't necessarily indicate the extent of the disease. Other clinical features depend on the location of the ectopic tissue: ovaries and oviducts: infertility and profuse menses ovaries or cul-de-sac: deep-thrust dyspareunia bladder: suprapubic pain, dysuria, hematuria small bowel and appendix: nausea and vomiting, which worsen before menses, and abdominal cramps cervix, vagina, and perineum: bleeding from endometrial deposits in these areas during menses. The primary complications of endometriosis are infertility and chronic pelvic pain.

Uterine leiomyomas

Leiomyomas may be located within the uterine wall or may protrude into the endometrial cavity or from the serosal surface of the uterus. Most leiomyomas produce no symptoms. The most common symptom is abnormal bleeding, which typically presents clinically as menorrhagia. Uterine leiomyomas probably don't cause pain directly except when associated with torsion of a pedunculated subserous tumor. Pelvic pressure and impingement on adjacent viscera are common indications for treatment. Other symptoms may include urinary retention, constipation, or dyspareunia.

Precocious puberty

The usual pattern of precocious puberty in females is a rapid growth spurt, thelarche (breast development), pubarche (pubic hair development), and menarche—all before age 9. These changes may occur independently or simultaneously.

Menopause

Many menopausal women are asymptomatic but some have severe symptoms. The decline in ovarian function and consequent decreased estrogen level produce menstrual irregularities: a decrease in the amount and duration of menstrual flow, spotting, and episodes of amenorrhea and polymenorrhea (possibly with hypermenorrhea). Irregularities may last a few months or persist for several years before menstruation ceases permanently. The following body system changes may occur (usually after the permanent cessation of menstruation): Reproductive system: Menopause may cause shrinkage of vulval structures and loss of subcutaneous fat, possibly leading to atrophic vulvitis; atrophy of vaginal mucosa and flattening of vaginal rugae, possibly causing bleeding after coitus or douching; vaginal itching and discharge from bacterial invasion; and loss of capillaries in the atrophying vaginal wall, causing the pink, rugal lining to become smooth and white. Menopause may also produce excessive vaginal dryness and dyspareunia due to decreased lubrication from the vaginal walls and decreased secretion from Bartholin's glands; smaller ovaries and oviducts; and progressive pelvic relaxation as the supporting structures lose their tone due to the absence of estrogen. ELDER TIP As a woman ages, atrophy causes the vagina to shorten and the mucous lining to become thin, dry, less elastic, and pale as a result of decreased vascularity. In addition, the pH of vaginal secretions increases, making the P 0 vaginal environment more alkaline. The type of flora also changes, increasing the older woman's chance of vaginal infections. Urinary system: Atrophic cystitis due to the effects of decreased estrogen levels on bladder mucosa and related structures may cause pyuria, dysuria, and urinary frequency, urgency, and incontinence. Urethral carbuncles from loss of urethral tone and mucosal thinning may cause dysuria, meatal tenderness, and

hematuria. Mammary system: Breast size decreases. Integumentary system: The patient may experience loss of skin elasticity and turgor due to estrogen deprivation, loss of pubic and axillary hair and, occasionally, slight alopecia. Autonomic nervous system: The patient may exhibit hot flashes and night sweats (in 75% of women), vertigo, syncope, tachycardia, dyspnea, tinnitus, emotional disturbances (irritability, nervousness, crying spells, fits of anger), and exacerbation of pre-existing depression, anxiety, and compulsive, manic, or schizoid behavior. Menopause may also induce atherosclerosis, and a decrease in estrogen level contributes to osteoporosis. Ovarian activity in younger women is believed to provide a protective effect on the cardiovascular system, and the loss of this function at menopause may partly explain the increased death rate from myocardial infarction in older women. Also, estrogen has been found to increase levels of high-density lipoprotein cholesterol.

Female infertility

Pelvic inflammatory disease

Clinical features of PID vary with the affected area but generally include a profuse, purulent vaginal discharge, sometimes accompanied by low□grade fever and malaise (particularly if gonorrhea is the cause). The patient experiences lower abdomen pain; movement of the cervix or palpation of the adnexa may be extremely painful. Frequent, painful urination is also commonly reported. Additional signs and symptoms include irregular or absent menstruation, dyspareunia, low back pain, and nausea and vomiting.

Amenorrhea

Secondary amenorrhea can be diagnosed when a change is noted in a previously established menstrual pattern (absence of menstruation for 3 months). A thorough physical and pelvic examination rules out pregnancy, as well as anatomic abnormalities such as cervical stenosis that may cause false amenorrhea (cryptomenorrhea), in which menstruation occurs without external bleeding. Onset of menstruation within 1 week after administration of pure progestational agents, such as medroxyprogesterone and progesterone, indicates a functioning uterus. If menstruation doesn't occur, special diagnostic studies are appropriate. Blood and urine studies may reveal hormonal imbalances, such as lack of ovarian response to gonadotropins (elevated pituitary gonadotropins), failure of gonadotropin secretion (low pituitary gonadotropin levels), and abnormal thyroid levels. Tests for identification of dominant or missing hormones include cervical mucus ferning, vaginal cytologic examinations, basal body temperature, endometrial biopsy (during dilatation and curettage), urinary 17-ketosteroids, and plasma progesterone, testosterone, and androgen levels. A complete medical workup, including X-rays, laparoscopy, and a biopsy, may detect ovarian, adrenal, and pituitary tumors.

Abnormal premenopausal bleeding

Bleeding not associated with abnormal pregnancy is usually painless, but it may be severely painful. When bleeding is associated with abnormal pregnancy, other symptoms include nausea, breast tenderness, bloating, and fluid retention. Severe or prolonged bleeding causes anemia, especially in patients with underlying disease such as blood dyscrasia and in patients receiving anticoagulants.

Dysfunctional uterine bleeding

DUB usually occurs as metrorrhagia (episodes of vaginal bleeding between menses); it may also occur as hypermenorrhea (heavy or prolonged menses, longer than 8 days) or chronic

polymenorrhea (menstrual cycle of less than 18 days). Such bleeding is unpredictable and can cause anemia.

Postmenopausal bleeding

Vaginal bleeding, the primary symptom, ranges from spotting to outright hemorrhage; its duration also varies. Other symptoms depend on the cause. Excessive estrogen stimulation, for example, may also produce copious cervical mucus; estrogen deficiency may cause vaginal mucosa to atrophy.

Abortion

Prodromal signs of spontaneous abortion may include a pink discharge for several days or a scant brown discharge for several weeks before the onset of cramps and increased vaginal bleeding. For a few hours, the cramps intensify and occur more frequently; then the cervix dilates to expel uterine contents. If the entire contents are expelled, cramps and bleeding subside. However, if any contents remain, cramps and bleeding continue.

Ectopic pregnancy

Ectopic pregnancy sometimes produces symptoms of normal pregnancy or no symptoms other than mild abdominal pain, making diagnosis difficult. Characteristic clinical effects after fallopian tube implantation include amenorrhea or abnormal menses, followed by slight vaginal bleeding, and unilateral pelvic pain over the mass. Rupture of the tube causes life-threatening complications, including hemorrhage, shock, and peritonitis. The patient experiences sharp lower abdominal pain, possibly radiating to the shoulders and neck, often precipitated by activities that increase abdominal pressure, such as a bowel movement; she feels extreme pain upon motion of the cervix and palpation of the adnexa during a pelvic examination.

Hyperemesis gravidarum

The cardinal symptoms of hyperemesis gravidarum are unremitting nausea and vomiting. The vomitus initially contains undigested food and mucus as well as small amounts of bile; later, only bile and mucus; and finally, blood and material that resembles coffee grounds. Persistent vomiting causes substantial weight loss and eventual emaciation. Associated effects may include pale, dry, waxy, and possibly jaundiced skin; subnormal or elevated temperature; rapid pulse; a fetid, fruity breath odor from acidosis; and central nervous system symptoms, such as confusion, delirium, headache, lassitude, stupor and, possibly, coma.

Gestational hypertension

Mild preeclampsia generally produces the following clinical effects: hypertension, proteinuria (less than 5 g/24 hours), generalized edema, and sudden weight gain of more than 3 lb (1.4 kg) per week during the second trimester or more than 1 lb (0.5 kg) a week during the third trimester. Severe preeclampsia is marked by increased hypertension and proteinuria, eventually leading to the development of oliguria. Hemolysis, elevated liver enzymes, and low platelets (the HELLP P 7 syndrome) is a severe variant. Other symptoms that may indicate worsening preeclampsia include blurred vision due to retinal arteriolar spasms, epigastric pain or heartburn, and severe frontal headache. In eclampsia, all the clinical manifestations of preeclampsia are magnified and are associated with seizures and, possibly, coma, premature labor, stillbirth, renal failure, and hepatic damage.

Hydatidiform mole

The early stages of a pregnancy in which a hydatidiform mole develops typically seem normal, except that the uterus may grow more rapidly than usual. The first obvious signs of trouble—absence of fetal heart tones, vaginal bleeding (from spotting to hemorrhage), and lower abdominal cramps—mimic those of spontaneous abortion. The blood may contain hydatid vesicles; hyperemesis is possible, and signs and symptoms of preeclampsia are also possible. Other complications of P 9 hydatidiform mole may include anemia, infection, trophoblast embolism, uterine rupture, and choriocarcinoma.

Placenta previa

Placenta previa usually produces painless third-trimester bleeding (often the first complaint). Various malpresentations occur because of the placenta's location and interfere with proper descent of the fetal head. P 0 (The fetus remains active, however, with good heart tones.) Complications of placenta previa include shock or maternal and fetal death.

Abruptio placentae

Abruptio placentae produces a wide range of clinical effects, depending on the extent of placental separation and the amount of blood lost from maternal circulation. (See Degrees of placental separation in abruptio placentae, page 1192.) Mild abruptio placentae (marginal separation) develops gradually and produces mild to moderate bleeding, vague lower abdominal discomfort, mild to moderate abdominal tenderness, and uterine irritability. Fetal heart tones remain strong and regular. Moderate abruptio placentae (about 50% placental separation) may develop gradually or abruptly and produces continuous abdominal pain, moderate dark red vaginal bleeding, a tender uterus that remains firm between contractions, barely audible or irregular and bradycardiac fetal heart tones and, possibly, signs of shock. Labor usually starts within 2 hours and often proceeds rapidly.

Cardiovascular disease in pregnancy

Typical clinical features of cardiovascular disease during pregnancy include distended jugular veins, diastolic murmurs, moist basilar pulmonary crackles, cardiac enlargement (discernible on percussion or as a cardiac shadow on chest X-ray), and cardiac arrhythmias (other than sinus or paroxysmal atrial tachycardia). Other characteristic abnormalities may include cyanosis, pericardial friction rub, pulse delay, and pulsus alternans. P 4 Decompensation may develop suddenly or gradually, with persistent crackles at the lung bases. As it progresses, edema, increasing dyspnea on exertion, palpitations, a smothering sensation, and hemoptysis may occur.

Adolescent pregnancy

Clinical manifestations of adolescent pregnancy are the same as those of adult pregnancy (amenorrhea, nausea, vomiting, breast tenderness, fatigue). However, the pregnant adolescent is much more likely to develop complications, such as poor weight gain during pregnancy, premature labor, and pregnancy-induced hypertension. In addition, the neonate is more likely to be of low birth weight. Some of these complications are related to the pregnant adolescent's physical immaturity, rapid growth, interest in fad diets, and generally poor nutrition; other complications may stem from the adolescent's need to deny her condition or to her ignorance of early signs of pregnancy, which often delays initiation of prenatal care.

Diabetic complications during pregnancy

Indications for diagnostic screening for maternal diabetes mellitus during pregnancy include obesity, excessive weight gain, excessive hunger or thirst, polyuria, recurrent monilial infections, glycosuria, previous delivery of a large neonate, polyhydramnios, maternal hypertension, and a family history of diabetes.

Preterm labor

Like labor at term, preterm labor produces rhythmic uterine contractions, cervical dilation and effacement, possible rupture of the membranes, expulsion of the cervical mucus plug, and a bloody discharge.

Premature rupture of membranes

Typically, PROM causes blood-tinged amniotic fluid containing vernix particles to gush or leak from the vagina. Maternal fever, fetal tachycardia, and foul□smelling vaginal discharge indicate infection.

Puerperal infection

A characteristic sign of puerperal infection is fever (at least 100.4° F [38° C]) that occurs in the first 24 hours in the first 9 days postpartum. This fever can spike as high as 105° F (40.6° C) and is commonly associated with chills, headache, malaise, restlessness, and anxiety. Abortion or miscarriage isn't usually associated with this infection and fever. Accompanying signs and symptoms depend on the infection's extent and site and may include: endometritis: heavy, sometimes foul-smelling lochia; tender, enlarged uterus; backache; severe uterine contractions persisting after childbirth parametritis (pelvic cellulitis): vaginal tenderness and abdominal pain and tenderness (pain may become more intense as infection spreads). The inflammation may remain localized, may lead to abscess formation, or may spread through the blood or lymphatic system. Widespread inflammation may cause: pelvic thrombophlebitis: severe, repeated chills and dramatic swings in body temperature; lower abdominal or flank pain; and, possibly, a palpable tender mass over the affected area, which usually develops near the second postpartum week femoral thrombophlebitis: pain, stiffness, or swelling in a leg or the groin; inflammation or shiny, white appearance of the affected leg; malaise; fever; and chills, usually beginning 10 to 20 days postpartum (these signs may precipitate pulmonary embolism) peritonitis: body temperature usually elevated, accompanied by tachycardia (greater than 140 beats/minute), weak pulse, hiccups, nausea, vomiting, and diarrhea; constant and possibly excruciating abdominal pain.

Mastitis and breast engorgement

Mastitis may develop anytime during lactation but usually begins 1 to 2 weeks postpartum with fever (101° F [38.3° C] or higher in acute mastitis), malaise, and flulike symptoms. The breast (or, occasionally, both breasts) becomes tender, hard, swollen, and warm. Unless mastitis is treated adequately, it may progress to breast abscess. Breast engorgement generally starts with onset of lactation (day 2 to day 5 postpartum). The breasts undergo changes similar to those in mastitis, and body temperature may be elevated. Engorgement may be mild, causing only slight discomfort, or severe, causing considerable pain. A severely engorged breast can interfere with the infant's capacity to feed because of his inability to position his mouth properly on the swollen, rigid breast.

Galactorrhea

In the female with galactorrhea, milk continues to flow after the 21-day period that's normal after weaning. Galactorrhea may also be spontaneous and unrelated to normal lactation, or it may be

caused by manual expression. Such abnormal flow is usually bilateral and may be accompanied by amenorrhea.

Hyperbilirubinemia

The primary sign of hyperbilirubinemia is jaundice, which doesn't become clinically apparent until serum bilirubin levels reach about 7 mg/dl. Physiologic jaundice develops 24 hours after delivery in 50% of term neonates (usually day 2 to day 3) and 48 hours after delivery in 80% of premature neonates (usually day 3 to day 5). It generally disappears by day 7 in term neonates and by day 10 in premature neonates. Throughout physiologic jaundice, serum unconjugated bilirubin levels don't exceed 12 mg/dl. Pathologic jaundice may appear anytime after the first day of life and persists beyond 7 days with serum bilirubin levels greater than 12 mg/dl in a term neonate, 15 mg/dl in a premature neonate, or increasing more than 5 mg/dl in 24 hours.

Erythroblastosis fetalis

Jaundice usually isn't present at birth but may appear as soon as 30 minutes later or within 24 hours. The mildly affected neonate shows mild to moderate hepatosplenomegaly and pallor. In severely affected neonates who survive birth, erythroblastosis fetalis usually produces pallor, edema, petechiae, hepatosplenomegaly, grunting respirations, pulmonary crackles, poor muscle tone, neurologic unresponsiveness, possible heart murmurs, a bilestained umbilical cord, and yellow or meconium-stained amniotic fluid. About 10% of untreated neonates develop kernicterus from hemolytic disease and show symptoms such as anemia, lethargy, poor sucking ability, retracted head, stiff limbs, squinting, a high-pitched cry, and seizures. Hydrops fetalis causes extreme hemolysis, fetal hypoxia, heart failure (with possible pericardial effusion and circulatory collapse), edema (ranging from mild peripheral edema to anasarca), peritoneal and pleural effusions (with dyspnea and pulmonary crackles), and green- or browntinged amniotic fluid (usually indicating a stillbirth). Other distinctive characteristics of the neonate with hydrops fetalis include enlarged placenta, marked pallor, hepatosplenomegaly, cardiomegaly, and ascites. Petechiae and widespread ecchymoses are present in severe cases, indicating concurrent disseminated intravascular coagulation. This disorder retards intrauterine growth, so the neonate's lungs, kidneys, brain, and thymus are small, and despite edema, his body size is smaller than that of neonates of comparable gestational age.