151. A 19-year-old woman presents to your office with complaints of vulvar and vaginal pruritus. She reports being treated for a UTI with amoxicillin 10 days earlier. She denies abdominal pain or fever. On physical exam, you note some erythematous punctate macular lesions bilaterally near the perineum, but no papular or vesicular lesions. On speculum exam, you find a white discharge that has a negative whiff test, and a potassium hydroxide (KOH) prepared slide reveals the image in Figure 151. What is the treatment of choice?

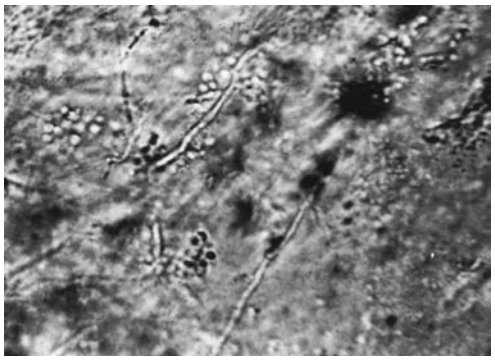

Figure 151 • Reproduced with permission from Crissey, JT. Manual of Medical Mycology. Blackwell Science, 1995: 90.

A. Oral acyclovir
B. Topical acyclovir applied to the lesions
C. Oral metronidazole (Flagyl)
D. A longer course of amoxicillin
E. Antifungal vaginal cream

152. A 22-year-old G_0 Caucasian woman presents with complaints of increased body and facial hair. She has noticed increased hair growth on her upper lip, chin, upper back, and lower abdomen for about 6 weeks. On review of systems, she also notes deepening of her voice and enlargement of her clitoris. None of the other women in her family has any of these symptoms, and she feels quite self-conscious as a result. She underwent menarche at age 13, has irregular menses every 25 to 45 days, and has never been sexually active. On physical exam, she is found to be 5′6″ tall and weighs 114 lbs. She has some generalized acne on her face and back in addition to acanthosis nigricans. There are a few terminal hairs on her back as well as some stubble on her cheeks and upper lip. Her escutcheon is diamond-shaped. A pelvic ultrasound shows a large adnexal mass that has both cystic and solid components as well as septations. Her most likely diagnosis is:

A. Sertoli-Leydig cell tumor
B. CAH
C. Testicular feminization
D. Polymenorrhea
E. PCOS

153. A 33-year-old G_4P_2 patient at 38 5/7 weeks GA has been in the second stage of labor for 3 hours when you are called for the delivery. She presented with contractions about 12 hours ago and was 3 cm dilated. She made reasonable progress, becoming fully dilated over the ensuing 10 hours with oxytocin augmentation. Her antenatal course was complicated only by diet-controlled gestational diabetes. Her last two births were 7 and 5 years ago, both vaginal, with fetal weights of 8.5 and 9 lbs, respectively. As the fetus is beginning to crown, you are prepared to:

A. Perform a forceps delivery
B. Perform a vacuum delivery
C. Perform a cesarean delivery
D. Manage a shoulder dystocia
E. Manage a uterine inversion

154. A 54-year-old woman presents for an exploratory laparotomy and total abdominal hysterectomy-bilateral salpingo-oophorectomy (TAH-BSO) for a large left pelvic mass that is shown in Figure 154. Upon entering the abdomen, you take peritoneal washings. The mass is isolated to the left ovary with no evidence that it is broken beyond the capsule. Upon examination of the uterus, tubes, and contralateral ovary, you find no gross evidence of disease. Upon palpation, the pelvic and aortic lymph nodes seem entirely normal. There is no evidence of any lesions on the bowel, omentum, or diaphragm either. Final pathology returns are consistent with the above gross findings, but with positive malignant cells in the washings. Given the above tumor and the positive peritoneal washings, what is the stage of this ovarian cancer?

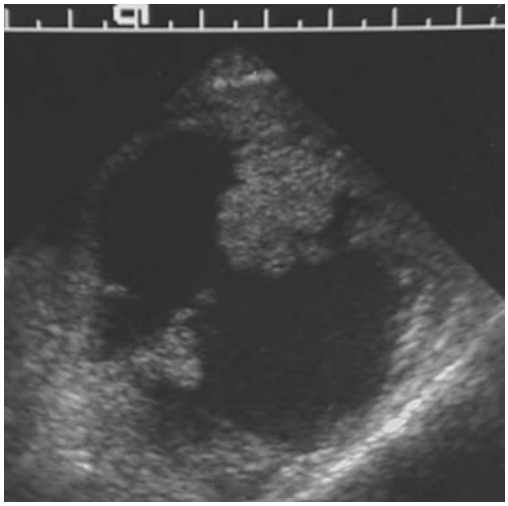

Figure 154 • Image provided by Departments of Radiology and Obstetrics & Gynecology, University of California, San Francisco.

A. Ia
B. Ib
C. Ic
D. IIb
E. IIIc

151. **E.** The patient has vulvovaginal candidiasis secondary to treatment with amoxicillin for her UTI. Vulvovaginal candidiasis may present with pruritus and a white discharge, and may be triggered by changes in sexual habits, undergarments, or a course of antibiotics. Treatments for this condition include over-the-counter antifungal preparations (Monistat), prescription topical agents (Terazole cream), and oral fluconazole (Diflucan). The oral treatment consists of a one-time dose, is greater than 85% effective, and is much more convenient than the topical agents.

A. Oral acyclovir would be used for treatment of or prophylaxis against HSV lesions.

B. Topical acyclovir is more often used for herpes labialis or herpetic lesions on the upper lip rather than herpes vaginalis or vulvar lesions.

C. Metronidazole can be used to treat bacterial vaginosis. Common dosing regimens include 500 mg twice daily and 250 mg three times daily PO.

D. The patient has been treated for her UTI, so she does not need any more amoxicillin.

152. **A.** This patient presents with acute hirsutism as well as virilism (e.g., deepening of the voice, male pattern baldness, clitoromegaly). Ovarian tumors that can lead to hirsutism and virilism include sex-cord mesenchymal tumors, granulosatheca cell tumors, germ cell tumors, and the Sertoli-Leydig cell tumors. These tumors can all secrete testosterone and lead to virilization.

B. CAH results from a constellation of enzyme deficiencies, the most common being an absence of 21-hydroxylase, which results in excess 17α-hydroxyprogesterone and can lead to the complete inability to synthesize cortisol or mineralocorticoids. Adult-onset CAH can be quite mild, with anovulation and androgenization, but should still have elevated DHEAS and/or testosterone. CAH usually presents in early childhood, but can present in adults. It rarely presents as acutely as seen in this patient, and would not have an associated ovarian tumor.

C. Testicular feminization is most commonly related to absence or dysfunction of the testosterone receptor. These patients are genetically 46,XY but are phenotypically female. Because of the testosterone receptor dysfunction, they cannot become hirsute or virilized.

D. Polymenorrhea is menstruation more frequently than every 21 days. This patient has irregular, less frequent menses.

E. PCOS is also known as polycystic ovarian disorder (PCOD) or simply PCO. This condition, first described by Stein and Leventhal in the setting of hirsutism, virilism, anovulation, amenorrhea, and obesity, presents as a chronic condition. It is also associated with insulin resistance and hence, type 2 diabetes. This patient's symptoms are too acute to be PCOS.

153. **D.** In this patient with gestational diabetes and a history of a macrosomic birth, you should be prepared for the possibility of a shoulder dystocia. This includes alerting the nursing staff of your suspicion, having extra help in the room, flexing the patient's thighs for delivery, and having someone ready to apply suprapubic pressure after delivery of the head, if necessary.

A, B. A forceps delivery is unnecessary in this case. Further, given your suspicion for macrosomia, the use of forceps or vacuum to perform an operative vaginal delivery is inadvisable.

C. A cesarean delivery is unnecessary at this point with vaginal delivery being imminent. Rarely, if a severe shoulder dystocia cannot be resolved after 5 to 6 minutes of maneuvers, the fetal head is pushed back into the maternal pelvis and a cesarean delivery is performed. Called a Zavanelli maneuver, this is the procedure of last resort in a shoulder dystocia.

E. Uterine inversion is more common in multiparous women and with macrosomic fetuses. It is uncommon, and unlikely to occur in this patient.

154. **C.** Ovarian cancer stage I is as follows: Ia is confined to one ovary; Ib involves both ovaries; Ic is either a or b with rupture of the ovary, disease outside the capsule, or positive peritoneal washings.

A, B, D, E. See Table 154.

TABLE 154 Staging of Ovarian Carcinoma

Stage I – Growth limited to ovaries	
a	Limited to 1 ovary. No ascites. Capsule intact
b	Limited to both ovaries. No ascites. Capsule intact
c	a or b plus positive washings or disease beyond the capsule
Stage II – Disease extends to the pelvis	
a	Malignant cells in the uterus or fallopian tubes
b	Malignant cells elsewhere in the pelvis
c	a or b plus positive washings or disease beyond the capsule
Stage III – Disease extends to the abdomen	
a	Only microscopic disease
b	Metastases $<$ 2 cm in size
c	Metastases $>$ 2 cm in size or any positive pelvic or para-aortic nodes
Stage IV – Distant metastases include positive pleural effusion, and disease in the liver parenchyma	

155. **D.** A first-degree relative with bilateral, premenopausal disease confers an eightfold increase in breast cancer risk. This family history is the strongest risk factor in any patient, and management usually entails annual mammograms starting 10 years prior to when the relative was first diagnosed with disease.

A. Obesity carries a relative risk of 2.

B. Nulliparity is associated with a threefold risk of disease compared to parous patients.

C. Hypertension appears associated with breast cancer, with an odds ratio of 1.2 to 1.5.

E. Diabetes, similar to hypertension, is weakly associated with breast cancer.