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William F. Rayburn

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S. Paige Hertweck

A Photo Album of Pediatric and Adolescent Gynecology **1**

Mary Anne Jamieson

Although dysmenorrhea, pelvic mass or pain, genital irritation, and amenorrhea are relatively common complaints, the astute clinician needs a broad differential diagnosis to avoid missing uncommon underlying etiologies such as Müllerian anomalies and cryptomenorrhea, ovarian teratomas and torsion, labial hypertrophy, vaginal foreign bodies, dermatopathies, genital ulcers, imperforate hymen, and the absent vagina. This article discusses and illustrates uncommon pediatric and adolescent gynecologic conditions that present with these common complaints.

Disorders of Sexual Development **25**

Lisa Allen

Disorders of sex development are medical conditions in which the development of chromosomal, gonadal, or anatomic sex varies from normal and may be incongruent with each other. This article primarily addresses the medical conditions where infants may be born with ambiguous genitalia leading to decisions with regard to gender assignment. The approach to investigations and diagnosis in the newborn period will be stressed within an interprofessional team. Policies with regard to surgery have developed, with techniques evolving and data emerging from long-term outcome studies. Current medical and surgical management are reviewed. Finally, a developmental approach to disclosure is presented.

Müllerian Anomalies **47**

Lesley L. Breech and Marc R. Laufer

The development of the Müllerian system and the female reproductive tract is a complex process involving an integrated series of events with significant potential for abnormal development and anomalies. Structural anomalies of the female reproductive tract may be isolated or occur in association with other congenital anomalies, including renal or bladder anomalies and anorectal malformations. Although rare in occurrence, it is important to be familiar with these conditions for appropriate diagnosis, management, and possible referral. The diagnosis, management, and

surgical treatments of female reproductive tract anomalies in girls and young women have advanced with improvements in diagnostic imaging techniques, surgical and nonsurgical techniques and innovative instrumentation and developments.

Urologic Issues in the Pediatric and Adolescent Gynecology Patient **69**

Elizabeth B. Yerkes

This article lends the urologist's perspective on complaints commonly seen in a pediatric and adolescent gynecology practice, such as perineal pain, repetitive posturing, vulvovaginitis and interlabial masses. Evaluation and management of urinary tract infections and daytime incontinence is discussed. The role of constipation and pelvic floor dysfunction in many of these complaints is emphasized.

Genital Trauma in the Pediatric and Adolescent Female **85**

Diane F. Merritt

Genital injuries in female children and adolescents may occur accidentally or as the result of an act of violence. This article discusses the etiologies and management of genital trauma. Awareness needs to be heightened among individual providers of medical care, as well as in the international community, to protect young girls from becoming victims of violence and to provide avenues for recovery.

The Adolescent Sexual Health Visit **99**

Taraneh Shafii and Gale R. Burstein

Addressing sexual health, screening, and counseling to prevent sequelae of risky sexual behavior are essential components of the adolescent visit to the gynecologist. Discussing sexuality and taking a sexual history may cause feelings of discomfort for the provider and adolescent patient alike. Taking the time to build rapport and trust and the guarantee of confidentiality are key to engaging adolescent patients to discuss their personal health concerns with their provider. This article offers recommendations to facilitate dialog with the adolescent patient, addresses special considerations for the adolescent examination, discusses the use of some of the newly available tests for sexually transmitted infections (STIs), and suggests the recommended approach to management of STIs in adolescents.

Update in Adolescent Contraception **119**

Eduardo Lara-Torre

Pregnancy rates in the United States seem to have stabilized in the past decade but continue to be higher than those in other industrialized nations. Although abstinence and barrier methods are available and efficient in preventing pregnancy, a comprehensive approach is a better choice when counseling patients on available options. The new approach to old contraceptive methods provides new alternatives to adolescents seeking safe and reliable methods. The availability and proved safety with longterm reversible contraceptive methods, such as the intrauterine system and

subdermal implant, may allow adolescents to make better choices in preventing pregnancy. Future efforts in research should concentrate on finding the reasons why adolescents are at increased risk for unplanned pregnancy and solutions for this problem. Future contraceptive technology continues to focus on safety and convenience to facilitate the use of contraceptives in adolescents.

Polycystic Ovary Syndrome in the Adolescent

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Samantha M. Pfeifer and Sari Kives

Polycystic ovary syndrome (PCOS) is now recognized as a heterogeneous disorder that results in overproduction of androgens, primarily from the ovary, leading to anovulation and hirsutism and is associated with insulin resistance. Long-term sequelae of PCOS include higher risk for diabetes, obesity, metabolic syndrome, endometrial hyperplasia, and anovulatory infertility. Symptoms in the adolescent include oligomenorrhea, hirsutism, acne, and weight gain. Insulin resistance, impaired glucose tolerance, and diabetes have also been demonstrated in adolescents who have PCOS. Treatment should be instituted early to decrease symptoms and long term sequelae of PCOS. Weight loss, oral contraceptives, and antiandrogens are effective in treating the symptoms of this disorder. Insulin-sensitizing medications have been shown to be effective but should be used with caution until larger randomized trials have shown short- and long term benefits and efficacy over traditional therapies in the adolescent population.

Bleeding Disorders in Adolescents

153

Andra H. James

Adolescents who have bleeding disorders are more likely to experience abnormal reproductive tract bleeding, particularly menorrhagia or heavy menstrual bleeding. Even though most abnormal reproductive tract bleeding in adolescents is not attributable to a bleeding disorder, adolescents with abnormal reproductive tract bleeding are more likely to have an underlying bleeding disorder. After proper evaluation, most abnormal reproductive tract bleeding in adolescents can be managed hormonally, with the addition of hemostatic therapies when necessary.

Thrombophilic Conditions in the Adolescent: The Gynecologic Impact

163

Jennifer E. Dietrich and Donald L. Yee

As Virchow's triad suggests, a fine balance exists between the vascular wall, intravascular contents, and dynamic blood flow, such that a shift in this balance predisposes to thrombosis. Although thromboembolic events (TEs) are relatively infrequent in adolescents, the morbidity and mortality associated with TEs can be significant. Over the past 15 years, TEs and inherited and acquired thrombophilic conditions underlying them have become increasingly recognized in teens at risk, with combined hormonal contraception constituting one of the most significant of these risk factors.

Therefore, managing gynecologic problems in teens who have thrombophilic conditions can be challenging. It is important to have a clear understanding about safe options available to help address adolescent gynecologic concerns in this setting and to manage situations collaboratively with a hematologist.

Adolescent Endometriosis

177

Claire Templeman

The presence of endometrial glands and stroma outside the uterus, typically in the pelvis, is known as endometriosis. An adolescent with this diagnosis usually presents with chronic pelvic pain, and she and her family are anxious for an explanation of her symptoms. Traditionally, endometriosis had been thought to occur only rarely in adolescence, but with an increasing awareness of the disease among the medical community, it is being diagnosed more frequently. An outline of the disease and the issues surrounding its diagnosis and management in adolescents is the focus of this article.

Postscript: The following article is an addition to Colposcopy, Cervical Screening, and HPV, the December 2008 issue of *Obstetrics and Gynecology Clinics of North America* (Volume 35, Issue 4)

The Epidemiology of Anal Human Papillomavirus and Related Neoplasia

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Joel M. Palefsky and Mary Rubin

The relationship between cervical cancer and human papillomavirus (HPV) is well known. Like cervical cancer, anal cancer is preceded by a series of precancerous changes, raising the possibility that like cervical cancer, anal cancer can be prevented. Further, given the known risk factors for anal cancer, prevention efforts could be targeted to high-risk groups, providing a unique example of a screening program targeted to high-risk individuals. This article describes the epidemiology of anal HPV infection, anal intraepithelial neoplasia, and anal cancer among men and women, as well as current efforts to prevent anal cancers.

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