autoamputation should be considered when evaluating a prepubertal girl with a mobile pelvic mass.

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Isolated Transient Neonatal Clitoromegaly with Hyperandrogenism of Unknown Etiology

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Background: Neonatal clitoromegaly is usually attributed to androgen stimulation secondary to congenital adrenal hyperplasia or in utero exposure. We present a case of transient, isolated neonatal clitoromegaly associated with increased androgen levels that spontaneously resolved when androgen levels normalized. No cause of the hyperandrogenism has been found.

Case: M.S. was delivered at 25 + 5 weeks gestational age by caesarean section for antepartum hemorrhage secondary to placenta previa percreta. Birthweight was 775 g.

Clitoromegaly was first documented at three months of age. The clitoris measured 18 mm in length and 13 mm in width. There was no labial hyperpigmentation or rugation and a separate single urethra, a patent vaginal opening, and a patent anus were seen. No pubic hair, axillary hair, acne, or breast tissue was seen.

Initial bloodwork documented extremely high levels of free testosterone (117 pmol/L), DHEAS (> 27 umol/L), and elevated 17-OH progesterone (19.3 nmol/L). Electrolytes were normal and congenital adrenal hyperplasia (CAH) was ruled out with a subsequent ACTH stimulation test (17-OHP 15.5 nmol/L, cortisol 832 nmol/L). A normal 11-deoxycorticosterone level (12 ng/dl) ruled out an 11-beta-hydroxylase deficiency. A normal 46 XX karyotype with no mosaicism ruled out testicular feminization. Mullerian inhibiting substance (MIS) level was less than 0.1 ng/mL, indicating no ovotesticular tissue. An abdominal-pelvic ultrasound documented two normal ovaries, a uterus, and no testes. No adrenal gland abnormalities were seen. Beta-HCG was less than 1 IU/L. An initially elevated alpha-feta protein (2979 ug/L) and liver function tests were thought to be a result of total parental nutrition. These levels declined over time.

In utero exposure to androgens was ruled out on maternal history. There was no maternal history of drug use, hyperandrogenism, or virilization during pregnancy. Multiple radiologic investigations during the pregnancy, performed because of the placenta percreta, did not detect ovarian cysts or androgen secreting tumors.

Two weeks after the initial bloodwork, androgen levels had decreased (free testosterone 30 pmol/L, DHEAS 20 umol/L). One month later, androgen levels had completely normalized without therapy (free testosterone 8 pmol/L, DHEAS 5.7 umol/L). At five months of age, the clitoris measured 10 mm in length and 5 mm in width.

Comments: Excessive growth of the clitoris in a female infant suggests androgen exposure. In most cases, a source of androgen production is determined. This case demonstrates the occurrence of hyperandrogenism and clitoromegaly in an ex-premature female infant that resolved spontaneously without therapy. Only one other case of hyperandrogenism and clitoromegaly that resolved spontaneously in a preterm female infant has been reported. The clitoromegaly in that case was driven by high testosterone levels that were postulated to be a result of repeated blood transfusions from an adult male. The etiology of the hyperandrogenism and resultant clitoromegaly in our case is not known.

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MRKH with Vaginal Remnants: Options for Creating a Functional Vagina

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Background: Mayer-Rokitansky-Kuster-Hauser (MRKH) syndrome, also known as mullerian aplasia or vaginal agenesis, typically manifests as primary amenorrhea and may present with pelvic pain. Although most often diagnosed in adolescence, the initial age of presentation varies and may be further complicated by misdiagnosis. This case reports an adult female with MRKH and native vaginal remnants and proposes a novel surgical approach which can be applied to an adolescent population.

Case: A 43 year old non-sexually active woman was referred for primary amenorrhea. Thelarche and pubarche occurred normally; she complained of pelvic pain and a few episodes of bleeding of unclear etiology. Chromosomal analysis was 46 XX. MRI revealed normal ovaries, absent uterus, small cervix, and a small hematocolpos. A laparoscopy was notable for the presence of bilateral ovarian tissue and absence of a uterus or cervix. A small dimple 2–3 cm inferior to the urethra was visualized, however unable to be probed. The working diagnosis was vaginal agenesis.

Treatment options for the creation of a functional vagina included utilization of dilators or a skin graft. The patient opted for a McIndoe vaginoplasty with a Repliform graft. A transverse incision was made at the appropriate location of the introitus. During the dissection to create a vaginal space, two narrow lateral vaginal tracts were visualized. Each tract was lined by vaginal mucosa and contained mucus. Given concern about scar tissue formation within the created vaginal space, the Repliform graft was utilized instead of proceeding with placement of a mold without a graft. Routine post-McIndoe care was performed and the patient was discharged home with a Mylex dilator in place. Two weeks post- operatively the patient complained of vaginal burning and tissue protruding from the vagina. Examination revealed sloughing of part of the Repliform graft from the lateral areas of native vagina, with attachment of the graft anteriorly and posteriorly in the midline. The length of the vaginal canal was maintained and healthy appearing vaginal tissue was visualized distally. Excess graft tissue was excised. Long term treatment plan was continuous use of flexible vaginal dilators for at least 3 months.

Comments: This case describes a novel “hybrid” method to construct a functional vagina in a woman with MRKH and blind vaginal remnants. We utilized a graft to epithelialize the newly created vagina while the native vaginal tissue was able to proliferate and incorporate into the neovagina. This surgical approach is a viable option for adolescents with MRKH and the presence of native vaginal remnants, and should be considered in patients with MRKH, pelvic pain, and episodes of bleeding.

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Cervical Dysplasia and Associated Risk Factors in a Juvenile Detainee Population

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Background: Canada has recently licensed a new human papilloma virus (HPV) vaccine for use in adolescent females, aiming to decrease the incidence of oncogenic serotypes of HPV and associated cervical cancer. There are many known risk factors for cervical cancer, including infection with certain strains of HPV, a history of sexually transmitted infections, early age at first intercourse, multiple partners, and low socioeconomic status. The current screening method using the Papanicolaou (Pap) test is limited in detecting HPV infection and cervical cancer, with an overall sensitivity of only 70% when used routinely. We performed a chart review to identify the juvenile detainee population as a high risk group for HPV infection and subsequent risk for cervical cancer, and therefore an important target for primary HPV prevention.

Methods: A retrospective chart review was conducted at the Sundance Detention Center in Kingston, Ontario, of all female detainees admitted between 2003 and 2006. Data collection included the number of girls who had Pap tests, their results, and the incidence of sexually transmitted infections (STIs). Information about other risk factors, such as prostitution, number of sexual partners, and the use of contraception or protection, was also evaluated.

Results: In total, 119 charts were reviewed. The patient ages ranged from 11 to 19 (average age 16). Of the 50 girls who had Pap smear results on record (42%), for a total of 57 Pap smears (as several girls had more than one), 46 (80.7%) were reported as normal, 5 (8.8%) were reported as ASCUS (atypical squamous cells of unknown significance), and 6 (10.5%) were reported as LSIL (low-grade squamous intraepithelial lesion). 1 girl was tested for HPV and was positive. The prevalence of STIs varied: 4% of those tested were positive for Gonorrhea, 10% for Chlamydia, 32% for Bacterial vaginosis, 5% for Trichomonas, and there were no positive tests for Syphilis. 77 of the girls were tested for HIV, Hepatitis B and Hepatitis C with no positive results, however 4 girls had clinical evidence of Genital Herpes or Pelvic Inflammatory Disease. 75 (63%) of the girls reported