WHAT DO ADOLESCENT FEMALES KNOW ABOUT BREAST CANCER AND PREVENTION?

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Background: Many lifelong habits begin during adolescence. These habits can have profound, long-term ramifications on health. An important health habit is self-breast examination (SBE). The purpose of this study is to assess adolescent females' knowledge of breast cancer and breast cancer prevention. A survey was developed with questions that focused on female adolescents' knowledge of these topics. This information will assist health professionals in educating teens and forming public policy.
Methods: Anonymous surveys consisting of ten questions were distributed to 280 females aged 13–17. These questions pertained to breast cancer with an emphasis on SBE, mammography, and risk factors. Questions were analyzed by chi square calculations. An additional section of the survey contained demographic characteristics of the respondents. Parental consent was obtained prior to completion of the surveys in accordance with the Institutional Review Board at St. Luke's Hospital. Surveys were administered during health class in a local high school.
Results: One hundred and fifteen surveys were returned. Ages of participants were 13 to 17. The ethnic background of all participants were similar in that the majority were Caucasian. The overall percentage of correct answers was 65%. The majority of students knew what a mammogram is (92%) and how often screening should occur (65%), however, only 25% knew at what age screening should begin. It was encouraging that 80% of the students knew how often to perform SBE although only about half (53%) knew the time of the month this should be done. It was also encouraging that 83% knew that breast cancer is the second leading cause of cancer death, but the knowledge regarding risk factors that could possibly affect them was poor (36%). A statistically significant findings was that in the twenty percent of the students who had been taught SBE, 10 (43.5%) actually perform them. This is in relation to 2.2% of students who perform exams without any prior instruction. There was no statistically significant difference in the final score between students who had been taught how to perform exams and students who had not.
Conclusions: Developing sound health habits as an adolescent should transcend to good health maintenance practices as an adult. Our study showed that adolescent females significantly lack knowledge relating to breast cancer. Adolescent females need to be better educated on the basic facts, including risk factors, screening procedures and SBE. With the incidence of breast cancer so high, knowledge of breast cancer and its prevention may result in earlier diagnosis and subsequently better long term outcomes.

OBSTETRIC OUTCOME OF ADOLESCENT PREGNANCIES

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Background: To determine if adolescent pregnancies are at increased risk of poor obstetrical outcome compared with a general obstetrical population.
Methods: A five-year retrospective review of the Toronto Hospital for Sick Children's Teenage Pregnancy Unit was carried out. Information was available on 209 patients $<$ 19 years age between January 1994 and December 1998. This was compared to information available from a database of all women delivering at the same hospital, The Toronto Hospital General Division, during the same time period (n = 13,557). The Chi-square test of independence was used to compare the data and is reported as adolescent group vs. hospital group.
Results: Labour was induced in 25.5% vs. 21.8% ($p = 0.20$). Epidural anaesthesia was received by 63.5% vs. 53% ($p < 0.05$). The incidence of preterm delivery ($<$37 wks) was 13.5% vs. 8.1% ($p < 0.05$), low-birth-weight babies ($<$ 2500 g) 13.4% vs. 8.6% ($p < 0.05$) and small-for-gestational-age babies ($<$2 SD) 1.9%. The incidence of post-term delivery ($>$41 wks) was 12.5% vs. 4.3% ($p < 0.001$), macrosomia ($>$4000 g) 1.9% vs. 9.2% ($p < 0.001$) and large-for-gestational-age babies ($>$2 SD) 0.5%. Operative delivery (forceps or vacuum) occurred in 19.7% vs. 19.9% ($p = 0.94$) and caesarian section in 6.2% vs. 20.1% ($p < 0.001$). APGARs $<$7 at five minutes were found in 2.4% vs. 3.1% ($p = 0.60$). 12.0% of infants were admitted to the neonatal nursery. There were no stillbirths.
Conclusions: Both preterm deliveries and low-birth-weight babies were more frequent in the adolescent group although the incidence of SGA babies was low. The low caesarian section rate also likely reflects these findings. Postterm delivery was also more common, yet macrosomia occurred less frequently.

NON-CLASSIC 21-HYDROXYLASE DEFICIENCY IN AN 18-YEAR-OLD FEMALE ATHLETE: A CASE REPORT

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Background: In non-classic 21-hydroxylase deficiency, age at presentation and genital findings are variable. Late diagnosis with dramatic signs of virilization precludes early treatment and thus prevention of anatomic and psychosocial consequences. The following case illustrates the complexity of late diagnosis.
Case: An 18-year-old West Indian female was seen for evaluation of clitoromegaly and hirsutism discovered in the emergency department when she presented after sexual

assault. She had allegedly been drugged and raped in her dorm room. She was a college student with an athletic scholarship and had a striking masculinized, broad-shouldered appearance. She denied any use of anabolic steroids or other drugs. Menarche was at age 16 with infrequent menses. She was sexually active with 4 life-time partners, all male. On physical exam, her height was 152 cm, weight 50 kg, blood pressure 110/70 mm Hg. Breasts were hypoplastic with hyperpigmented nipples. She was hirsute with a Ferriman-Gallwey score of 14. Genitalia were abnormal with clitoris measuring 5.5 × 1.5 cm and posterior labial fusion. Initial non-fasting serum 17-hydroxyprogesterone level was 2890 ng/dL, testosterone was 274 ng/dL, and cortisol was 9 μg/dL. Chromosome analysis was 46, XX and ACTH stimulation test confirmed the diagnosis of 21-hydroxylase deficiency. The patient was initially reluctant to begin glucocorticoid treatment because of concern that it would decrease her muscle mass and negatively impact on her athletic performance and scholarship support. One year after diagnosis and 10 months after beginning treatment, she elected surgical correction of her clitoromegaly because of extreme embarrassment over having erections during sex. She underwent excision of most of the corpus cavernosum with repositioning of the glans. The neurovascular elements were preserved. The patient is pleased with the cosmetic result and reports no change in achieving orgasm. She has not notices any change in muscle mass or athletic performance since beginning glucocorticoid therapy.

Conclusion: This case illustrates the somatic and genital abnormalities as well as the psychosocial impact of a delayed diagnosis of 21-hydroxylase deficiency in this young female athlete.

TEEN COMPLIANCE WITH CONTRACEPTION: ANALYSIS OF THE OHIO MEDICAID CLAIMS DATA

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Background: Teen pregnancy is an important and costly issue for society and often commits the mother to a life of poverty. Physicians play an important role in preventing teen pregnancy by identifying teens at risk for pregnancy and prescribing contraception. This study examines for the first time, whether pharmacy data can be used to evaluate teens' compliance with contraception. Such a method may be useful to physician groups, health plans or state agencies to identify teens at risk for unwanted pregnancy and target interventions.

Methods: Secondary analysis of the Ohio Medicaid Claims Data from 1998 was done identifying continuously enrolled young women ages 12–19 years, at high risk for pregnancy defined by ICD 9 codes for an STD, an abnormal pap smear, contraception, or a CPT code for a pregnancy test.

Results: Between 1/1/98–3/31/98 we identified 4009 females, ages 12–19 years at high risk for pregnancy. During the study interval, 1084 (27%) became pregnant. 1732 (43%) used no prescription contraception and 1190 (30%) used a method at some time. Depo only (551) and OCP only (552) use was equal. Eighty-three combined the use of Depo and OCP. Compliance was poor. Only 20% of the contracepting group had coverage for the full year and approximately 30% used a method for 3 months or less. There was little difference in age or concurrent chronic physical or mental illness between the contracepting and non-contracepting groups. General practice physicians provided 40% of the OCP prescriptions to teens compared with 36% Ob/Gyn, 10% Pediatrics, and 6% Internal Medicine.

Conclusions: Analysis of pharmacy data to evaluate the contraceptive compliance of teens at high risk for pregnancy demonstrated poor compliance. This may be a useful tool for identifying teens at risk for unwanted pregnancy and targeting interventions.

SELF-INDUCED CARVING AND SCARIFICATION OF THE FOREARMS AS A MANIFESTATION OF SEXUAL ABUSE IN A 14-YEAR-OLD ADOLESCENT GIRL

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Background: Numerous cutaneous abnormalities have been described in adolescent girls who have been sexually abused. These include bruising, bite marks, cuts, scratches, abrasions, edema, hematomas or other evidence of struggle. Victims frequently shower or bathe excessively in an effort to cleanse their skin following such an unwanted encounter. However, there is a paucity of information in the literature regarding the association of sexual abuse and removal of the superficial layers of the skin as a more desperate attempt by teenagers to rid themselves of the perpetrator. The purpose of this paper is to heighten awareness among practitioners that self-induced cutting and carving of the forearms with scarification may occur as a manifestation of sexual abuse in young women.

Methods: A 14-year-old girl was seen in an adolescent medicine consultation setting during the spring of 1999 for evaluation of an anxiety disorder. During the interview the girl related that she had been under considerable stress and that she was having difficulty sleeping. She also had worsening of facial tics that had been previously noted in association with obsessive compulsive behaviors. She had been receiving psychotherapy and was being treated with fluoxetine, but the symptoms were becoming more severe. On examination she appeared very anxious and demonstrated numerous involuntary, repetitive facial grimaces. Similar twitching movements of the neck were also noted. In addition, she had several well healed scars over both forearms. The lesions were linear with a range of one half to one inch in width and three to four inches in length. The remainder of the general physical examination was entirely unremarkable.

Results: The etiology of the scars was initially unknown. Upon further questioning the patient was asked directly about what had caused these marks. At that point she broke down and cried as she related that had been sexually assaulted several months earlier. She stated that she carved out tatoos on her arms to get rid of the skin that the perpetrator had touched when he forcibly held her down