A retrospective study: Contraceptive use, counseling given and occurrence of Venous Thrombus Embolism in Adolescent Systemic Lupus Erythematosus Patients

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According to the Center for Disease Control (CDC), 46.8% of high school students surveyed in 2013 have been sexually active. Of those surveyed, 34% had sexual intercourse within the past 3 months, 40.9% of whom did not use a condom during their last sexual encounter. Counseling regarding contraceptive use is important for all teens, but can be especially important for patients with Systemic Lupus Erythematous (SLE). Given the types of medications used for treatment to be teratogenic. SLE can also inherently increase the risk for venous thromboembolism (VTE).

The current CDC medical eligibility for contraceptive use provides guidance among different patient populations. Among patients with SLE and who are anti phospholipid antibody (APLA) positive, estrogen containing contraceptives are contraindicated. For this reason progestin only methods are typically utilized in sexually active adolescents with SLE. These include the progestin only pill, injection, implant and the intrauterine device. These methods are a category 3 indicating the risk of use may outweigh the benefits. The occurrence of these risks have not been documented in the adolescent SLE population. A recent study demonstrated a 3.6 fold increase of VTE among those who used depo-medroxyprogesterone acetate (DMPA) compared to non-users of hormonal contraceptive methods. However, this study only included women 18-50 years of age with other comorbidities and did not focus on SLE patients.

Purpose/Objectives
1) To determine past contraceptive use among SLE adolescent patients at our institution and occurrence of contraceptive counseling
2) To examine type/medication of medication use among SLE patients if and counseling was given about possible teratogenic risks
3) To determine if VTE or weight gain occurred while on a contraceptive method
4) To determine HPV vaccine status in this population

Methods

A retrospective chart review involving females (>21 years of age) with a diagnosis of SLE, identified by ICD-9 codes between the years 2000-2015 at Texas Children’s Hospital

- APLA status was recorded
- Contraceptive needs, type of method used and side effects were reviewed. Demographics, SLE year of diagnosis, sexual history, pubertal history and whether counseling was provided if they were sexually active was recorded.
- Descriptive statistics were utilized.

Results

- Sexual activity was reported in 46.51% of participants, and only 20% of those patients reported consistent condom use.
- Contraceptive counseling was provided to 95.35% of SLE patients, regardless of reported current sexual activity status.
- 24 patients (28.24%) developed declining contraceptive hormones despite counseling.
- 2 patients were started on a combined estrogen-progestin contraceptive option.
- The remaining patients chose progestin only options: Micronor or "mini-pill": 20 patients (23.53%)
- DMPA injection: 20 patients (23.53%
- Nexplanon subdermal implant: 12 patients (14.1%)
- Minora IUD: 1 patient (1.15%)
- BMI was found to increase an average of 2.68 after 1 year after contraceptive counseling.
- No VTEs were reported in any patients while using hormonal contraception, including DMPA.
- 57 patients (66.28%) reported completing the HPV vaccine. 16.28% had never received the vaccine and 17.44% were unknown.

Demographics

- Our study included 87 menarchal female patients from our institution, ranging from age 8-17.
- Majority of patients reached menarche between ages 12-13.
- All participants had a diagnosis of SLE, and 68% of participants had positive APLA status.
- 46.5% of patients were Hispanic, 32.56% African American, 13.95% Caucasian, and remaining 6.86% were of unknown or other ethnicity
- 88% of patients were found to be using one or more teratogenic medications for SLE management, including Methotrexate, Captopril and Cytotoxin.
- Nearly one half of patients reported regular cycles prior to SLE diagnosis (47.67%) and 8.14% reported irregular cycles prior to diagnosis.
- The rest of participants were unknown or were diagnosed with SLE prior to menarche.
- About 2/3 reported regular cycles after SLE diagnosis (61.63%) and 1/3 reported irregular cycles following diagnosis (31.40%).

Contraceptive Choices in Female Patients with SLE

- Combined OCP
- Micro/nor
- Nexplanon
- IUD
- Ring

Conclusion

In our institution, we found contraceptive counseling was given to 95% of SLE patients in regards to teratogenic medications and importance of avoiding unplanned pregnancies. Our goal at our institution is to have a 100% counseling rate. Although counseling was offered to nearly all patients, 28.24% of patients declined hormone contraception. Counseling may differ among providers and this was not examined in our study. We now have a combined gynecology/rheumatology clinic where one provider counsels most newly diagnosed SLE patients.

Discussion/Future Work

- Show no increase risk VTE use of progestin-only containing options in SLE patients while and without APLA status. This is important for women’s health to broaden the spectrum of contraceptive options for patients with SLE, especially in regards to avoiding unplanned pregnancies.
- With our study revealed no major risk of progestin-only hormone methods in SLE patients.
- A significant increase in BMI was noted in patients after 1 year of hormone use (P<0.01) showing an average BMI increase of 2.68 after one year of hormonal contraception use. Though weight gain was noted in our patients during this study period, a temporal confounder for many was the concomitant use of steroids.
- Only 66.28% had completed the HPV vaccination series. Given the higher risk of invasive cervical cancer in the immunocompromised population, this an area for improvement in the future. Further study regarding HPV vaccine counseling in the SLE population is needed as well. We would also like to at Pap-Smear results in the adolescent SLE population to see if early screening is warranted.

References

3) Haleh Sangi, PhD, Julie Hakim, MD. A retrospective chart review involving females (>21 years of age) with a diagnosis of SLE, identified by ICD-9 codes between the years 2000-2015 at Texas Children’s Hospital. APLA status was recorded Contraceptive needs, type of method used and side effects were reviewed. Demographics, SLE year of diagnosis, sexual history, pubertal history and whether counseling was provided if they were sexually active was recorded. Descriptive statistics were utilized.
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