

Gynecologic conditions in post-menarchal adolescents with congenital bleeding disorders (CBD) when compared to adult women – a surveillance report of the Female Universal Data Collection project in United States Hemophilia Treatment Center Network

Jane Geyer, MSN, WHNP¹, Vanessa R. Byams MPH², Lakshmi V. Srivaths MD³, Qing C. Zhang PhD², Andra H. James, MD, MPH⁴, Peter A.

Kouides MD⁵, Roshni Kulkarni MD⁶, Jennifer E. Dietrich MD, MSc¹ and the Hemophilia Treatment Centers Network Investigators

Department of Obstetrics and Gynecology, Baylor College of Medicine, Houston, TX¹; Division of Blood Disorders, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Atlanta, GA²; Department of Pediatrics, Section of Hematology/Oncology, Baylor College of Medicine, Houston, TX³; Division of Maternal-Fetal Medicine, University of Virginia, Charlottesville, Virginia⁴; Mary M. Gooley Hemophilia Treatment Center, Rochester, NY⁵; Department of Pediatrics and Human Development, Michigan State University, East Lansing⁶



Introduction/Objective

- Gynecologic conditions (GYNC) in adolescents with heavy menstrual bleeding (HMB) & congenital bleeding disorders (CBD) may be different when compared to adults, due to younger age, lack of patient/provider awareness, & psychosocial issues causing delayed diagnoses.
- The study aim was to compare the prevalence of GYNC between post-menarchal adolescents < 18 years of age and adult women \geq 18 years of age with CBD. The findings may indicate whether early diagnosis and intervention for CBD could impact the occurrence of GYNC in a particular age group.

Methods/Materials

- The study population consisted of post-menarchal (menarche self-reported) females with HMB enrolled in the Female Universal Data Collection project.
- Patient demographics, CBD types, and self-reported GYNC were compared for both groups.
- Cross-sectional descriptive analyses (frequency distributions, summary statistics, and bivariate analyses) were performed.

Results

- N= 274 post-menarchal women with CBD and HMB
 - 79 adolescents (median age 16yrs; range 11-17yrs)
 - 195 adults (median age 28yrs; range 18-82yrs)
 - Distributions of CBD diagnoses were similar between adolescents and adults, respectively:
 - von Willebrand disease (96% vs. 88%) clotting factor deficiency (14% vs. 17%) platelet disorders (3% vs. 5%)
 - Majority with single, few with multiple CBD
 - Higher proportion of adults than adolescents reported bleeding from:
 - ovarian cysts (24% vs. 4%; $p=.0005$)
 - fibroids or fibroid tumors (12% vs. 1%; $p=.03$)
 - endometriosis (14% vs. 4%; $p=.02$)
 - Although not statistically significant, breakthrough spotting (48% vs. 33%) and dysmenorrhea (66% vs. 51%) were more prevalent in adults ($p=0.07$).

	Total (N=274) n(%)	Adolescent (N=79) n(%)	Adult (N=195) n(%)	P Value
Bleeding ovarian cysts	49(18)	3(4)	46(24)	0.0005
Fibroids or fibroid tumors	23(9)	1(1)	22(12)	0.03
Endometriosis	30(11)	3(4)	27(14)	0.02
Irregular Cycles	142(53)	37(49)	105(54)	0.62
Breakthrough Spotting	116(44)	25(33)	91(48)	0.07
Mittelschmerz	99(37)	26(34)	73(38)	0.62
Dysmenorrhea	165(62)	39(51)	126(66)	0.07
Uterine or cervical polyps	11(4)	1(1)	10(5)	0.16
Uterine or cervical cancer	7(3)	1(1)	6(3)	0.58

Figure 1: GYN complications in adolescents vs adults with CBD

Conclusion /Future Direction

- Adults had higher prevalence of several GYNCs, including endometriosis, bleeding ovarian cysts, and fibroids or fibroid tumors.
- Both adolescents and adult women with CBD and HMB are affected by GYNC.
- More work is needed to determine whether earlier interventions in adolescents may prevent later morbidity among adults.

Acknowledgments

- Zia, A., Rajpurkar, M. Challenges of diagnosing and managing the adolescent with heavy menstrual bleeding. *Thromb Res*. 2016. May3 (143)91-100
- Dowlut-McElroy, T., Williams, K.B., Carpenter, S.L., Strickland, J.L. Menstrual patterns and treatment of heavy menstrual bleeding in adolescents with bleeding disorders. *J Pediatr Adolesc Gynecol*. 2015. Dec:28(6):499-501

