

# Inherited Bleeding Disorders

## *Gynecologic and Obstetric Complications*

**Diane Kholos Wysocki, PhD**

**M**any women have bleeding disorders that are undiagnosed or misdiagnosed, and then undergo surgery or hormone therapy that might have been avoidable had the diagnosis of an underlying bleeding disorder been made.

This article explains the nature, prevalence, and symptoms of gynecologic and childbirth complications experienced by women as a direct result of an inherited bleeding disorder. Although the literature on bleeding disorders in women is expanding, many OB/GYNs are not yet fully cognizant of the prevalence of these disorders, as well as the havoc that they can wreak during the reproductive years.

### **BLEEDING DISORDERS**

Most bleeding disorders are genetic conditions that render patients unable to produce one of the coagulation factors necessary to form a fibrin clot. True hemophilia is a sex-linked inherited disorder because it is the X chromosome that carries the gene and contains the instructions for making coagulation factors VIII and IX, which play pivotal roles in

the clotting process. Although rare, hemophilia can develop in females in whom this same gene mutates spontaneously, with subsequent lyonization (inactivation) of the normal X chromosome.<sup>1,2</sup>

A far more common cause of inherited bleeding in females is von Willebrand's disease (vWD; prevalence, 1%–3%). In fact, vWD is the most common bleeding disorder in females.<sup>1</sup> Transmission of this disease is autosomal dominant. Symptoms include bruising, bleeding from mucous membranes (e.g., mouth, nose, gastrointestinal tract, uterus), bleeding after surgery or dental work, and anemia from chronic menorrhagia.<sup>3–5</sup> However, the diagnosis of vWD, especially in its milder forms, is often a challenge.<sup>6</sup> As a result, many women who present with symptoms such as bruising or menorrhagia remain undiagnosed or misdiagnosed.<sup>5,7</sup> This is unfortunate, because physicians can prescribe an effective hemostatic treatment for vWD-related menorrhagia. In most cases, desmopressin, a synthetic analog of vasopressin, will increase plasma levels of von Willebrand factor and factor VIII two- to five-fold. This treatment is available in an intranasal formulation (Stimate).<sup>8,9</sup>

Because of the additional chal-

lenges of monthly menstruation and intermittent childbirth, women with vWD are more likely than their male counterparts to be symptomatic.<sup>10–12</sup> Thus, OB/GYNs should not only be able to recognize vWD and other bleeding disorders but should also know how to manage potential gynecologic and obstetric complications.

### **THE SURVEY**

#### **Methods**

Dr Wysocki utilized a “snowball” technique to gather women with some type of bleeding disorder who were willing to take part in this project.<sup>7,13</sup> From 1996 to the present, she established contact with such women through hemophilia conferences, Internet bulletin boards (e.g., Hemophilia Support) and Web sites, advertisements in magazines geared for the “hemophilia community” (e.g., *Belongings*, *Hemolog*), hemophilia chapter newsletters, and “word of mouth.” Her aim was to give women with bleeding disorders an opportunity to report the gynecologic and obstetric complications that they have experienced.

#### **Results**

To date, 161 completed questionnaires have been analyzed using the

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Statistical Package for the Social Sciences. Among respondents, 68% had vWD and 32% had another type of genetic bleeding disorder (factor I, V, VII, VIII, or IX deficiency) or they were told by their physicians that they were "free bleeders" or symptomatic carriers. Most respondents received the diagnosis from their gynecologist, internist, or general practitioner, but diagnostic accuracy was not confirmed.

Most respondents (mean age, 43 y) were white (92%), had more than a high school education (82%), and had at least one child (62%) or family member (62%) with a diagnosed bleeding disorder. Although the average respondent had her first bleeding episode at age 10, she was not diagnosed with a bleeding disorder until age 24. Most respondents (53%) had visited a hemophilia treatment center, but this visit did not occur until age 30 or later.

### **Gynecologic Data**

Mean age at menarche was 12.5 years. Respondents described their menstrual periods as unusually long (mean duration, 11.5 d), frequent (mean interval between cycles, 24.1 d), and heavy, and characterized by bleeding that worsened over time, often resulting in "embarrassing" episodes. Many women were advised to take iron pills because of menorrhagia-related anemia. These findings are consistent with other studies showing menorrhagia to be a common problem in women with bleeding disorders.<sup>1,14,15</sup>

Many participants stated that their first visit to a gynecologist was for abnormal bleeding. However, only 3% of physicians seen for this problem suggested that these women might have a coagulation disorder. Most participants had used oral contraceptives at some point in their

lives, for birth control and/or for bleeding control. Some respondents stated they were using desmopressin nasal spray (in some cases without their doctor's knowledge) to decrease menstrual flow and thought it was effective.

Sizable proportions of the women had undergone dilation and curettage (41%) or laparoscopy (34%) because of their bleeding problems, and 38% had already undergone a hysterectomy. Some women were

***Many OB/GYNs are not fully aware of the havoc that bleeding disorders can wreak during the reproductive years.***

advised to have a hysterectomy. For example, one respondent, a 21-year-old college student, reported that her doctor said she would never be able to have children and that the best thing she could do would be to undergo a hysterectomy to stop the bleeding. In fact, many of these hysterectomies and other gynecologic procedures might not have been necessary if these women had been properly diagnosed with a bleeding disorder. Broder and colleagues, who examined the appropriateness of recommendations for hysterectomy, found that 8% of hysterectomies were performed for bleeding and 9% for pain;<sup>16</sup> among these procedures, 70% were judged to have been done inappropriately.

### **Obstetric Data**

One-fourth of respondents miscarried at least once (mean number of miscarriages, 2.2). This finding is concordant with those of another study, which showed that threatened

miscarriage occurred in 33% of women with vWD and in 14% of those with factor XI deficiency.<sup>17</sup> The proportion of miscarriages that are directly due to bleeding disorders is unknown, however. Nearly two-thirds of the respondents had children (mean number of births, 2.3), and nearly half noted that their bleeding disorder affected decisions about pregnancy and childbirth.

Proper monitoring of the coagulopathy is essential for safe pregnancy and delivery because women with bleeding disorders, or even those who are symptomatic carriers, can experience extensive perineal bruising, hematomas, and postpartum hemorrhage requiring blood transfusion.<sup>17-19</sup> In this survey, the vast majority of respondents reported that their pregnancy and childbirth experiences were affected by the bleeding disorder: 14% experienced bleeding during the pregnancy, 6% had blood clots, 47% had excessive postpartum bleeding, and 25% required a blood transfusion for uncontrollable bleeding.

### **CONCLUSION**

OB/GYNs should have a high index of suspicion for bleeding disorders in adolescents or young women who present to their office because of heavy periods or excessive bleeding associated with dental work or surgery. In addition, they should be aware of the many gynecologic and obstetric complications that can occur in this patient population. Proper management of an inherited bleeding disorder will reduce morbidity from undiagnosed and untreated conditions. **TFP**

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## **Hemophilia Web Sites**

**National Hemophilia Foundation**  
[www.infonhf.org](http://www.infonhf.org)

**World Federation of Hemophilia**  
[www.wfh.org](http://www.wfh.org)

**Dr Wysocki's Web Site**  
[www.unk.edu/acad/sociology/wysocki/](http://www.unk.edu/acad/sociology/wysocki/)

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