
In the name of God

Frequency of Inherited Bleeding Disorders in Women with Menorrhagia

Dr.Manijeh Lak

Thrombosis & Homeostasis Research Center,
Imam Khomeini Hospital

Tehran University of Medicine Sciences

Introduction

- *Menorrhagia* is a very common clinical problem among women of reproductive age(13-49) .It is estimated that approximately 30% of women complain of menorrhagia (Rees MC,BJ Obstet Gyneacol;1991).

- Annualy, about 5% of women with menorrhagia require medical intervention (Kadir RA et al; Lancet 1998).

Introduction

- “Menorrhagia” is subjectively defined as a complaint of heavy cyclical menstrual bleeding, occurring over several consecutive cycles.
- objectively is defined as a menstrual blood loss of more than 80 mL per menstruation(Hallberg &Nilsson,1966)wich is equivalent to PBAC score > 100.

Introduction

Menorrhagia could be due to local or systemic causes,the underlying pathology remains unidentified in approximately 50% of cases.

And is account for two-third of all hysterectomies.

Introduction

- 20% of women in UK and 30% in USA have a Hysterectomy before the age of 60!
- In 50-70% of them menorrhagia was the main problem.
- Quality of life (physical and mental helth, social functioning),is reduced in women with menorrhagia, particularly in women with bleeding disorders (shanker et al; 2008).

Introduction

Recent studies have suggested that disorders of homeostasis are associated with menorrhagia as up to 20% of women with idiopathic menorrhagia have underlying bleeding disorders (Demers etal;2005).

The most commonest is:

Von Willebrand Disease

Pups Review

- Krause et al (1998)_Germany).

- 153 women with menorrhgia studied
  - 61/153 (40%) coagulation disorders:
    - 24% vWD
    - 2% Hemophilia carrier
    - 13% Other bleeding disorders

Kadir et al (1998) - England

- PBAC administered to 208 women with menorrhagia with a history of heavy, regular bleeding
  - 150/208 had PBAC scores >100
  - 20/150 (13%) VWD
  - 6/150 (4%)

other abnormalities - factor XI deficiency (4%), platelet dysfunction (1) and hemophilia carriage (1)

Retrospective Study

Kadir RA el, Hemophilia 1998

- A UK retrospective survey in women with inherited bleeding disorders using PBAC showed menorrhagia in:
  - ✓ 74% of pts with vWD.
  - ✓ 57% of carriers of Hemophilia A or B .
  - ✓ 59% FXI deficient .
  - ✓ 60% of FVII deficient .

Edlund et al (1996) -Sweden

- 30 women, objectively verified menorrhagia
- Pads and tampons collected
- Blood extracted with sodium hydroxide
- Hemoglobin loss estimated
- Blood loss > 80 ml/cycle
- 6/30 (20%) vWD

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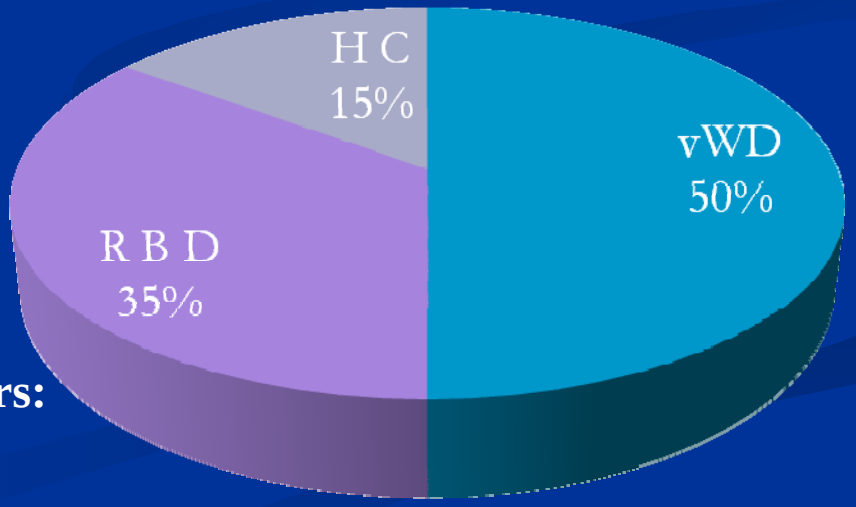
In a prospective study we evaluated frequency of inherited bleeding disorders in 66 women, age 10-45 years (mean age 29 years) with menorrhagia and a history of heavy, regular bleeding, objectively verified menorrhagia with blood loss>80ml (PBAC score >100)

4 of them were omitted (not willing to continue the study)

Patients Characteristics and Results

- **62 pts (10- 50 ys)**
- **Mean age: 29 ys**
- **Average: 27.26 ys**
- **Mod: 33**
- **20/62 (32%) coagulation disorders:**
  - **10/ 20 (50%) vWD:**
    - **80%Type I**
    - **20% Type III**
  - **3/20 (15%) Hemophilia carrier**
  - **7/20 (35%) Rare bleeding disorders:**
    - **6/7 (90%) FVII deficiency**
    - **1/7 (10%) FXI**



Conclusion

- Menorrhagia is the commonest bleeding symptoms in women with inherited bleeding disorders and could be the first or only presenting symptom.
- A significant proportion of women with idiopathic menorrhagia have an underlying bleeding disordered, *vWD is the commonest*

Therefore testing for bleeding disorders should be considered for women with idiopathic menorrhagia

Conclusion

Studies have shown that if bleeding history were taken prior to any invasive procedures and surgery among women with menorrhagia, 2/3 of post operative bleeding might be avoided (El-Hemaid I ,et al. Cutt Opin Obset; 2007) .

Initial investigation for menorrhagia should consist of a focused personal and family history of bleeding symptoms include laboratory screening tests.

Conclusion

Screening for bleeding disorders in women with menorrhagia should be done in:

- All adolescents (1/3 may have vWD)
- Adult women without another cause(13-20% may have vWD)
- Before hysterectomy for menorrhagia

Conclusion

- *Women with bleeding disorders appear to be at increased risk of miscarriages, postpartum hemorrhages, hemorrhagic ovarian cysts and more likely to undergo hysterectomy at younger ages.*
- The gynaecological and obstetric management of women with inherited coagulation disorders requires close collaboration between obstetrician/ gynaecologists and hematologist.

Which Coagulation Tests?

- CBC and Ferritin
- PFA-100
- PT , aPTT and BT
- vWF screen(vWF:Activity, vWF:Ag ,fVIIIc) testing.
- Platelet function Analysis (platlet aggregation and release studies)
- Other clotting factor levels

- ***May need repeat testing***
- ***Oral contraceptives may mask vWD***

Hemophilia carrier

pts n=2	Age	PT	PTT	BT	FVIII	FIX	VWF: Rco	VWF: Ag	
1	23	12	40	5	FVIII:C =30%	-	N	N	
2									
3	40	10	38	5	N	30%	N	N	

Other bleeding disorders pts

Totalpts n=7	Age	PT	PTT	BT	FVII	FXI	VWF :Rco	VWF :Ag
1	33	17	37	5	20%		-	-
2	44	15	33	4	40%		-	-
3	24	74	30	3	3%		-	-
4	40	28.5	29.5	3	6%		-	-
5	38	16	33	3	45%		-	-
6	28	16	32	3.5	32%		-	-
7**	14	14	101	3		<1%	-	-

vWD pts

Pts N	Age	PT	PTT	BT	BG	FVIII	VWF:Rco	VWF: Ag
1	24	N	↑	N		C=56%	40%	N
2	30	N	↑	N	AB P	N	44%	N
3	12	12.7	62/ ↑	>10	Op	-	1%	1%
4	27	13	35	6	Ap	-	1%	1%
5	33	10	35	5		-	45%	40%
6	13	13	38	3	O n	-	30%	28%
7	17	13	70	>10	Ap	-	<5%	No agg
8	13	10	38	4	Op	60%	46	52%

6.4 Pictorial Bleeding Assessment Chart

Fig 6.1: An example of a pictorial bleeding assessment chart

NAME .....

	DATE								
	TOWEL	1	2	3	4	5	6	7	8
1		//	/	/	/	//	/		
5			~~////~~	///	//				
20			//	//					

	TAMPON	1	2	3	4	5	6	7	8
1			/			/			
5			//	///	//				
10			~~////~~ /	///					
	DAILY SCORE	2	137	101	21	3	1		

TOTAL SCORE = 265 (Jansen 1995)

If score of >185 then likelihood of menstrual blood loss ≥80 mls/cycle is increased.

The use of PBAC should be considered in the assessment of menstrual blood loss for the diagnosis of menorrhagia and evaluation of the treatment outcomes