The Place of the Pictorial Blood Assessment Chart in the appreciation of quality of life in women with inherited bleeding disorders.

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INTRODUCTION :

Menorrhagia is one of the most frequent reasons for consultation in Gynecology (12% of all gynecological consultations). Five to 20% of childbearing age women suffer from Menorrhagia. It can influence their lifestyle through their impact on the social and professional life.

Hemostasis playing a key role in the regulation of blood loss during menstruation, the presence of menorrhagia in women with a inherited bleeding disorders (IBD) is an awaited event.
The prevalence of menorrhagia in these patients is variable depending on the study, ranging from 10 to 98%. This variability is due to the absence of easy and reproducible method for Assessing menstrual blood loss. In 1990 Higham et al have proposed a system of scoring Graph (Pictorial Blood Assessment Chart: PBAC) to minimize the subjectivity.
A score ≥ 100 allows menorrhagia identification with reasonable accuracy.

Purpose: to evaluate the quality of life of women with an IBD hereditary during their menstrual periods in terms of the PBAC (abundance of menstrual flow).

PATIENTS & METHODS :

A questionnaire was developed to assess the characteristics of the menstrual cycle, including menstrual blood loss and its impact on the quality of life.
We have enclosed a PBAC to assess menstrual blood loss more objectively.
Thirty-one patients carrying an IBD and followed in both the hemophilia treatment center and the gynecology obstetrics department of Aziza Othmana University hospital, agreed to answer the questionnaire. These patients had their menstrual periods for at least 2 years.
Among the 31 patients who completed the questionnaire, only 18 have submitted their PBAC.
We were interested only in these 18 patients.

The questionnaire consists of five main items:
i.   The general condition
ii.   The impact of menstruation on daily activities
iii.   Dysmenorrhea
iv.   Quality of life during menstruation

SCORE A: How many times during their periods they feel:
Full of life and energy, Calm and serene, happy and good about yourself
Each of these responses is scored from 1 (at any time) to 6 (always)
Score A ≤ 9 A sign of impaired quality of life.

SCORE B: How many times during their periods they feel:
Nervous, sad and low, Tired or Exhausted
Each of these responses is scored from 1 (always) to 6 (at any time)
Score B ≤ 9 sign a quality of life impaired.

vii.   Absenteeism and hospitalizations during menstruation

The questionnaire also includes questions on menstrual characteristics and extra genital hemorrhagic manifestations and their frequencies.
The duration of menstruation is considered normal when it is less than 6 days and prolonged when it is ≥ 6 days.
The abundance of menstrual flow was classified according to the assessment of patients with Normal and abundant. Patients were also divided into two groups based on the number of hygienic pads : > 40 and ≤ 40 towels in cycles. We also specified the type of sanitary napkin (small, medium or large).

Statistical analysis :
We computed simple frequencies and relative frequencies for categorical variables qualitative averages, medians and standard deviations for the quantitative variables.
The comparison between two means of independent groups was performed using the Student t test. The comparison of percentages of independent series was performed by the Pearson's chi square test . Statistical significance level (p) was set at 0.05.

RESULTS :

The average age of patients was 23 ± 8.78 years ranging from 14 to 41 years.

IBD	N	%
Glanzmann's Thrombasthenia	5	27,8%
Jean Bernard & Soulier disease	5	27,8%
Von Willebrand disease	4	22,2%
Factor VII deficiency	2	11,1%
Afibrinogenemia	1	5,6%
Factors V & VIII deficiency	1	5,6%
Total	18	100%

Table 1 : distribution of IBD in the study population

Among the 18 patients enrolled in the study, 12 (66.7%) have already presented gingival bleeding [over 5 episodes per year in 7 of them (38.9%)].
Twelve patients (66.7%) reported the notion of epistaxis, among these, only one had more than 5 episodes per year.
A tendency to easy bruising was reported by 88.9% (n = 16) patients, 22.2% of patients (n = 4) report a history of hematuria.
Three patients (16.7%) reported episodes of rectal bleeding and one patient (5.6%) reported a history of hematemesis.

Menstrual characteristics	Yes	No
Regular menstrual cycles	16 (88,9%)	2 (11,1%)
Menses duration (> 6 days)	5 (27,7%)	13 (72,3%)
Normal menstrual flow	14 (77,8%)	4 (22,2%)
Sanitary napkins > 20	3 (16,7%)	15 (83,3%)
Big size sanitary napkins	5 (27,7%)	13 (72,3%)
PBAC ≥ 100	7 (38,9%)	11 (61,1%)
Treatment	11 (61,1%)	7 (38,9%)

Table 2: Menstrual characteristics

PBAC average per-patient and per cycle was 98.5 ± 66.44 (range 23 - 213).
The difference between PBAC in terms of inherited bleeding disease is not statistically significant.

Eleven patients (61.1%) were under medical treatment at the time of the questionnaire (progestins 5th to the 25th day of the cycle or combined oral at 21 days / cycle).
Of these 11 patients receiving treatment at the time of the questionnaire, five had a score of ≥ 100 Higham.
Two patients receiving no treatment had a score of ≥ 100 Higham.
We did not find any correlation between the score value of Higham and the notion of drug intake.

Dysmenorrhea:
The average score of dysmenorrhea intensity score was 2.44 ± 1.33 (range 1-5).
The rate of patients who believe they have an intense dysmenorrhea (score ≥ 4) was 16.67% (n = 3).
In patients with a score ≥ 100 Higham, the average dysmenorrhea intensity score was 3.3 ± 1.5 vs 1.9 ± 0.9 when the score of Higham is <100. The correlation between the PBAC and intensity of dysmenorrhea was significantly (p = 0.048).
Fourteen patients (77.8%) estimated that dysmenorrhea had minimal influence on their lives vs three (16.6%) who consider that it causes a major inconvenience.
Seven patients (38.9%) reported to use a treatment to relieve dysmenorrhea (an anti-inflammatory drug in 42.8% of cases, a combined oral in 28.6% and 28.6% case of an analgesic).

General condition:
The general condition is considered good to very good in 66.7% of patients (n = 12). The other six patients (33.3%) consider their general condition as moderate.
We find no correlation between the condition and abundance of menstrual flow.
The correlation between general health and the PBAC is not significant.
The impact of menstruation on daily activities:
The average Score assessing the influence of menstruation on daily activities was 4.9 ± 3.3. It was above 8 (importabnt limitation) in 4 patients (22.2%) and ≤ 4 (no limitation) in 9 patients (50%). The impact of menstruation on daily activities was significantly correlated to the score of Higham (p = 0.016).

Quality of life during menstruation:
The A score of quality of life had a mean value of 8.7 ± 5.7, while the average B score was 10.6 ± 5.6.
Impaired quality of life (score ≤ 9) was found in 61.1% (n = 11) of patients according to the score A and in 44.4% (n = 8) of them by score B .
There is no significant correlation between these scores and the PBAC.

Absenteeism and hospitalizations during menstruation:
During menstruation, 22.2% of patients (n = 4) can't go to their work or school because of the inconvenience caused by the menstrual flow.
There is no correlation between the PBAC and absenteeism.
On the other hand, 50% of patients (n = 9), were hospitalized at least once before the heavy menstrual flow.
The correlation between the PBAC and hospitalization rates is significant (p = 0.05).

		N	PBAC < 100	PBAC ≥ 100	p
General condition	Good	12	8	4	NS
	Mild	6	3	3	
Daily activities	No limitation	9	8	1	0,016
	Mild limitation	5	2	3	
	Important limitation	4	1	3	
Quality of life Score A	Altered	11	4	7	NS
	Normal	7	6	1	
Quality of life Score B	Altered	8	4	4	NS
	Normal	10	3	7	
Absenteeism	Yes	4	1	3	NS
	No	14	10	4	
Hospitalization	Yes	9	3	6	0,05
	No	9	8	1	

Table 3: Correlation between the PBAC and quality of life

There is no correlation between the menses duration and the PBAC.
The correlation between the PBAC and menstrual flow as estimated by the patients was not significant.
There is no correlation between the type of sanitary napkins used and the PBAC.
We did not find any correlation between the PBAC and the both number and type of sanitary napkins.

		PBAC < 100	PBAC ≥ 100	p
The average of menstrual duration		5,54 ± 1,03	5,71 ± 1,38	NS
Menstrual flow	Normal (n=14)	10	4	NS
	Abundant (n=4)	1	3	
Kind of sanitary napkins	Big size (n=5)	3	2	NS
	Middle size (n=11)	7	4	
	Little size (n=2)	1	1	
Number of sanitary napkins		11,72 ± 4,56	16,7 ± 9,75	NS

Table 4 : Correlations between menstrual characteristics and the PBAC

CONCLUSION :

All studies conducted in patients carrying an inherited bleeding disorder confirm the impaired quality of life in these patients including menstrual periods due to excessive blood loss (menorrhagia).
These menorrhagia are usually accessible to treatment provided to make the diagnosis.
It is therefore recommended in these patients to achieve an objective assessment of menstrual blood loss and through a rating system Chart as described in 1990 by Higham et al, to differentiate patients requiring medical and surgical management (score> 100) and those to be reassured.
Above all, it seems essential that care providers (family physicians, gynecologists, haematologists) should be aware of the high prevalence of menorrhagia in these patients, therapeutic possibilities but also the need to treat these patients to improve their lives.