

## Severe Anemia from Heavy Menstrual Bleeding Requires Heightened Attention

Julia Ritchie<sup>1</sup> and Anita L Nelson<sup>1\*</sup>

<sup>1</sup>LosAngeles Biomedical Research Institute at Harbor-UCLA Medical Center, Torrance, CA, USA

\*Corresponding author: Anita L. Nelson, 1457 3rd Street, Manhattan Beach, CA, USA, Tel: (310) 937-7226; Fax: (310) 937-1416; E-mail: [anitalnelson@earthlink.net](mailto:anitalnelson@earthlink.net)

Received date: December 27, 2016; Accepted date: January 10, 2017; Published date: January 20, 2017

Copyright: © 2017 Ritchie J, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### Short Communication

Heavy menstrual bleeding is a common problem, it affects nearly one in seven women. It is very concerning that many women with heavy menstrual bleeding do not recognize their bleeding as abnormal. In a classic study by Hallberg et al., half of women with objectively measured monthly blood loss exceeding 80 mL characterized their flow as “mild or moderate” [1].

Excessive bleeding results in iron deficiency anemia, which in turn leads to serious medical problems and impacts women’s quality of life and their utilization of medical care services [2-9]. Iron deficiency can manifest with fatigue, oral lesions, dysphagia, reduced immune response, ischemic stroke, venous stasis, retinopathy or cerebral sinovenous thrombosis.

Given that virtually all reproductive aged women in the state of California have access to family planning/reproductive well women care, we thought it would be interesting to investigate the prevalence and the causes of bleeding with which women with severe anemia due to chronic heavy menstrual bleeding were admitted to our public health hospital for transfusion.

In a retrospective review, we examined the charts of all 271 premenopausal women treated at Harbor-UCLA Medical Center in Torrance, California for hemoglobin less than 5 mg/dL during the six years 2008-2013 inclusive [10]. Here are some of the significant highlights from this study:

122 women had hemoglobin level below 5 mg/dL due to medical problems other than heavy menstrual bleeding, such as renal failure or leukemia. Intriguingly, there was absolutely no documentation that any of these women was ever asked about their menses. This is very unfortunate since these severely anemic women could have benefitted from menstrual suppression, so that they would not lose any blood from menstruation.

Conclusion: Menstrual bleeding is a vital sign in reproductive age women. At each visit, reproductive aged women should be asked about their menstrual bleeding. Frequency, duration and volume of flow need to be documented [11].

Very severe anemia due to chronic heavy menstrual bleeding is not at all rare. In this study spanning six years, 149 women experienced 168 episodes of hemoglobin below 5 mg/dL leading to their hospitalization and treatment. The hemoglobin values leading to hospitalization for these women on admission varied between 1.6-4.9 g/dL.

Some women did not realize their bleeding was heavy: 7.8% considered their menses to be normal; while 7% learned of their problem only as result of routine screening for other reasons.

Many of the women who did recognize that their bleeding was heavy did not seek medical care, and suffered with this problem

chronically. Nearly 40% of the women in our study reported having previous transfusions.

Over one quarter of women had reactive thrombocytosis (platelet counts >420,000). High platelet counts place the women at higher risk for venous thromboembolism. This risk can be compounded when combined with the elevated risk of venous thromboembolism from high dose estrogen therapy. This may help explain why some women who are treated with high dose estrogen to arrest their acute bleeding experience pulmonary embolism [12,13].

Women in our study had a wide range of etiologies for their excessive bleeding. Leiomyoma were identified as the cause of bleeding in 47.9% of subjects, cancer and hyperplasia accounted for only 7.8% of cases, polyps for 5.2%. “Normal hormonal changes” was reported in 54% of endometrial biopsy specimens.

After transfusion has normalized a woman’s hemoglobin, patients need to be given bridge therapies with hormones to prevent recurrence of bleeding until more definitive therapies can be identified. Over one third of the women in our study were given only follow-up appointments but no medical therapies at discharge. 35.1% of the women were lost to follow-up prior to receiving treatment, and over one quarter of the women required future transfusions.

The results remind us how important it is to monitor women’s bleeding problems and control blood loss before anemia develops. For women who do develop anemia, more dramatic efforts are needed to control the endometrium. For any woman presenting with anemia, it is vital to obtain information about their menstruation and consider treatments to suppress blood loss from that source, even when other potential causes of anemia have been identified. With iron deficiency anemia, platelet counts should be measured before hormonal therapies are selected, as estrogen therapy should be avoided if your patient has thrombocytosis. Most importantly, clinicians should ask and should tell; women need to be counselled about what abnormal bleeding is—either prolonged bleeding (>8 days) or excessive amount (>80 mL/cycle)—so they can seek care before they develop anemia in the first place.

### References

1. Hallberg L, Högdahl AM, Nilsson L, Rybo G (1966) Menstrual blood loss—a population study. Variation at different ages and attempts to define normality. *Acta Obstet Gynecol Scand* 45: 320-351.
2. Côté I, Jacobs P, Cumming DC (2003) Use of health services associated with increased menstrual loss in the United States. *Am J Obstet Gynecol* 188: 343-348.
3. Côté I, Jacobs P, Cumming D (2002) Work loss associated with increased menstrual loss in the United States. *Obstet Gynecol* 100: 683-687.
4. Wang W, Bourgeois T, Klima J, Berlan ED, Fischer AN, et al. (2013) Iron deficiency and fatigue in adolescent females with heavy menstrual bleeding. *Haemophilia* 19: 225-230.

- 
5. Karlsson TS, Marions LB, Edlund MG (2014) Heavy menstrual bleeding significantly affects quality of life. *Acta Obstet Gynecol Scand* 93: 52-57.
  6. Mehta PJ, Chapman S, Jayam-Trouth A, Kurukumbi M (2012) Acute ischemic stroke secondary to iron deficiency anemia: a case report. *Case Rep Neurol Med* 2012: 487080.
  7. Chang YL, Hung SH, Ling W, Lin HC, Li HC, et al. (2013) Association between ischemic stroke and iron-deficiency anemia: a population-based study. *PLoS One* 8: e82952.
  8. Caglayan HZB, Nazliel B, Irkec C, Dumlu A, Filiz A, et al. (2013) Iron-Deficiency Anemia Leading to Transient Ischemic Attacks due to Intraluminal Carotid Artery Thrombus. *Case Rep Neurol Med* 813415.
  9. Kurzel RB, Angerman NS (1978) Venous stasis retinopathy after long-standing menorrhagia. *J Reprod Med* 20: 239-242.
  10. Nelson AL, Ritchie JJ (2015) Severe anemia from heavy menstrual bleeding requires heightened attention. *Am J Obstet Gynecol* 213: 97.
  11. Fraser IS, Critchley HO, Broder M, Munro MG (2011) The FIGO recommendations on terminologies and definitions for normal and abnormal uterine bleeding. *Semin Reprod Med* 29:383-390.
  12. Aundhakar SC, Mahajan SK, Mane MB, Lakhotiya AN (2013) Reactive thrombocytosis leading to acute myocardial infarction. *J Assoc Physicians India* 61: 745-747.
  13. Keung YK, Owen J (2004) Iron deficiency and thrombosis: literature review. *Clin Appl Thromb Hemost* 10: 387-391.