

Flavonoids and ferrochel in women with iron deficiency anemia of abnormal uterine bleeding: our experience in community-based private hematology/oncology and integrative medicine practice

Abstract

Abnormal uterine bleeding (AUB) is a common manifestation within gynecology practices, and they carry on the risk of iron deficiency anemia from chronic blood loss. Flavonoids are recommended as part of the treatment and the quality of life and the anemia improve. A combination with flavonoids and Ferrochel (an oral iron supplementation) is recommended guided by a review of medical literature and an opinion based on clinical experience. Both products were effective in menstrual bleeding reduction, but more clinical studies are needed to introduce them as a good initial choice for AUB and anemia treatment.

Keywords: flavonoids, hesperidine, diosmin, iron deficiency anemia, abnormal uterine bleeding

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Abbreviations: AUB, abnormal uterine bleeding; GnRH, gonadotropin-releasing secretion; Hb, hemoglobin; IUD, intrauterine devices; CVI, chronic blood vessel insufficiency

Opinion

Abnormal uterine bleeding (AUB), conjointly referred to as atypical and dysfunctional female internal reproductive organ bleeding, is often inflicting iron deficiency anemia.^{1,2} It will affect the standard of life negatively. AUB may be a common condition because it affects over seventieth of all gynecological consults (3). AUB affects two-hundredths of generative aged girls.² The underlying causes could embrace gonad issues, fibroids, endometrial dysplasia, female internal reproductive organ polyps, underlying harm issues, aspect effects from contraception, or cancer.¹⁻³ over one class of causes could apply in a personal case. The workup's primary step is to rule out an abnormal abdominal or physiological state.³ The AUB's causes are divided into nine groups: endometrial polyps, uterine fibroids, endometriosis, gynecological cancer, coagulation disorders, issues with biological process, mucosa issues, attention induced, and not nonetheless classified.³⁻⁵ Over one class of causes could apply in a personal case. Attention induced causes could embrace the aspect effects of contraception. Treatment depends on the underlying cause^{2,3} and includes oral contraceptive pills, gonadotropin-releasing secretion (GnRH) agonists, oral antifibrinolytics, NSAIDs, and surgery like mucosa ablation or ablation. Polyps, endometriosis, and cancer are treated with surgery. Iron supplementation is also required.

A group from university at Providence, Rhode Island⁶ performed a retrospective cohort study of patients seen within the women with AUB from August 2005 to October 2006 (n=378). They calculated prevalence ratios for moderate to severe anemia (defined as Hb of 10g/dL). Patients' median age was thirty-two years (49.2%), and they had a synchronal medical condition with moderate to severe anemia. A considerable proportion of patients seeking urgent medical attention for AUB had potential contraindications for treatment's mainstays. Clinical symptoms and harm history poorly presaged for moderate to severe anemia during this population of ladies. They suggested a lot of analysis of treatment choices for acute female internal reproductive

organ harm similarly because of tips for treating women with AUB. A study with thirty- six girls (means age, 33.3years; vary 20-45years). There is a history of excessive emission bleeding for a mean length of 11.7months that received 1,000mg/day of Daflon (containing ninetieth diosmin and one-tenth hesperidin) starting five previous her emission harm and that they reportable a superb response.⁷ It is well known that flavonoids work as venotonics giving capillary strength. A study with 41 women,⁸ giving them bioflavonoids, revealed that almost all women improved her well-being and had less bleeding while taking the bioflavonoids. Many initially had capillary strength below normal; it increased during treatment and remained high for a month or two after treatment had ceased. In a few women, it was normal. Treatment was slow to act; some women needed four months. Three of the women, of whom one had previously been infertile, became pregnant during treatment. The constitution of bioflavonoids is compared with that of estrogen. It is suggested that natural estrogens compete with bioflavonoids for a substrate, probably mucopolysaccharides, in the capillary sheath and ground substance.

In the relevance treatment of iron deficiency anemia, we have a superb expertise with Ferrochel (ferrous bis-glycinate chelate). It is an honest profile for the patients maintaining high tolerability, i.e., the least internal organ upset. It is well absorbed within dietary substances celebrated to inhibit regular iron, support overall health, and sustain a neutral style.⁹

Furthermore, Ferrochel restricts its incorporation into the body according to the amount of iron the physical needs; an iron-deficient patient will take in 90% of the iron from Ferrochel, whereas someone who is hardly iron enough will take in a lesser percentage of the iron. In that vein, Ferrochel is not the best treatment for patients who have a chronic case of iron deficiency anemia and need to absorb 100% of iron from supplements, regardless of adverse events.⁹ A Brazilian prospective longitudinal study¹⁰ in a cohort of 145 pregnant women giving ferrous sulfate vs. Ferrochel demonstrated that iron depletion was found in 30.8% of the women treated with Ferrochel and 54.5% the women than consumed ferrous sulfate. Of the factors responsible for non-compliance, the taste was reported in 29.8% of the ferrous sulfate consumers and none in the groups that consumed Ferrochel. It

is concluded that daily administration with Ferrochel was significantly more effective, despite the lower dose, than supplementation with ferrous sulfate.

I believe that the combination of flavonoids and Ferrochel is vital for ladies with AUB and anemia. In my follow, we tend to get superb results. We treated around five girls per day in our clinic and infusion center. The average hemoglobin was 9gm/dL. In case of more severe anemia (6.5-8.0gm/dL) and hemodynamically stable patients, we used intravenous sodium ferric gluconate complex in sucrose injection (FERRLECIT) and oral Ferrochel with an increment in their hemoglobin (Hb) of 2gm/dL in 3-4weeks.

So, in patients with severe iron deficiency, the use of Ferrochel and alternative oral iron reduced the danger of anemia previous the abnormal blood loss even despite women with intrauterine devices (IUD) that will increase menstrual blood in many ladies.¹¹

Regarding the flavonoids, it's well known that hesperidin, a bioflavonoid, is a plentiful and economic by-product of Citrus cultivation. A deficiency of flavonoids in the diet has been associated with abnormal capillary leakiness and pain in the extremities causing aches, weakness, and night leg cramps. No side effects were observed with the regular intake of hesperidin or related compounds. Both hesperidin and its aglycone hesperidin are reported to possess a wide range of pharmacological properties.¹² Its high content of phenolic compounds determines the valuable biological activity of C. Limon, mainly flavonoids (e.g., diosmin, hesperidin, limocitrin) and phenolic acids (e.g., ferulic, synapic, p-hydroxybenzoic acids).¹³ They are extensively used for the treatment of chronic blood vessel insufficiency (CVI). In clinical trials, micronized sublimated flavonoid fraction (MPFF, 450mg diosmin, and fifty mg hesperidin, Daflon five hundred mg) has denoted its activity in CVI by up blood vessel tone and physical vein property assessed by plethysmography. Randomized, double-blind, placebo-controlled clinical studies showed improvement in signs and symptoms associated with CVI and a decrease in leg circumferences at the amount of the ankle joint and calf. The result of MPFF on microvascular parameters suspected of taking part in the pathophysiological method of blood vessel ulceration has been investigated in patients. These include hemodynamic parameters and transcutaneous oxygen tension measurements, shown to improve after treatment with MPFF. Finally, a clinical study has been demonstrated that MPFF treatment for two months, in addition to standard compression therapy, accelerates leg ulcer healing in patients with ulcers $\leq 10\text{cm}$.¹⁴

Suppose we translate the prior knowledge in CVI to AUB. In that case, their clinical profit is from the rise in blood vessel tone of the female internal reproductive organ veins throughout the emission disorder. It had been incontestable during studies and reviews.¹⁵⁻¹⁷ I planned a mixture of flavonoids and Ferrochel for women with Iron deficiency anemia and AUB. I like to recommend doing clinical studies during this facet.

Conclusion

Investigation of traditional medicine literature can lead to the identification of effective natural medicines for the management of AUB and anemia and clinical experience in practice; however, conclusive confirmation of these treatments needs more clinical studies.

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Conflicts of interest

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