**Case Study 1**

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Ms. A. is an apparently healthy 26-year-old white woman. Since the beginning of the current golf season, Ms. A has noted increased shortness of breath and low levels of energy and enthusiasm. These symptoms seem worse during her menses. Today, while playing in a golf tournament at a high, mountainous course, she became light-headed and was taken by her golfing partner to the emergency clinic. The attending physician’s notes indicated a temperature of 98 degrees F, an elevated heart rate and respiratory rate, and low blood pressure. Ms. A states, “Menorrhagia and dysmenorrheal have been a problem for 10-12 years, and I take 1,000 mg of aspirin every 3 to 4 hours for 6 days during menstruation.” During the summer months, while playing golf, she also takes aspirin to avoid “stiffness in my joints.”

Laboratory values are as follows:

Hemoglobin = 8 g/dl

Hematocrit = 32%

Erythrocyte count = 3.1 x 10/mm

RBC smear showed microcytic and hypochromic cells

Reticulocyte count = 1.5%

Other laboratory values were within normal limits.

***Question***

Considering the circumstances and the preliminary workup, what type of anemia does Ms. A most likely have? In an essay of 500-750 words, explain your answer and include rationale.