Spontaneous Hematomas in a 61-Year-Old Woman

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A 61 year old female presented with a one month history of easy bruising, progressing to spontaneous, painful, and diffuse bruises covering approximately 10 percent of her body. The patient had a history of severe depression, migraines, coronary artery disease and two prior episodes of transient ischemic attacks. For these conditions her medications included fiorinal, aspirin, and clopidogrel, all of which she had been taking at the same dose for years, and desvenlafexine, which had recently been added to treat her refractory depression. In addition to prescribed aspirin, the patient endorsed using additional over the counter aspirin (in the form of Goody's Headache Powder) several times per week. The patient denied recent illness, fevers, or other pain.

Physical examination revealed diffuse hematomas (on all aspects of her body including the face, neck and forearms), notable for their size (*Figure 1)*. Also remarkable was the rapid development of hematomas in the Emergency Room with minor pressure (*Figure 2)* and spontaneously during evaluation (*Figure 3).*

Question

Based on the patient's presentation, medication history, physical examination and Emergency Department course, which one of the following is the most likely diagnosis?

A. Physical abuse

B. Hemophilia

C. Senile purpura

D. Iatrogenic coagulopathy

E. Thrombocytopenic purpura

Discussion

The answer is D: Iatrogenic coagulopathy. Coagulopathy with clopidogrel and aspirin is well described. (1,2) Selective Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs) are known to increase bleeding in patients receiving concurrent antiplatelet therapy. (3) A new generation of active metabolite formulations of SNRIs has been developed to reduce side effect profiles and drug-drug interactions. (4) However, the improved side effect profile of these new formulations may not extend to bleeding risk.

As the prevalence of SNRIs as part of our patients' medication profile is steadily increasing, it is important for primary care physicians to recognize their potential for interaction with anti-platelet therapies, and to closely monitor patients on these medications, especially at times of initiation and dose changes. Treatment remains discontinuation of the pathologic combination.

Physical abuse of the elderly is not uncommon, and can often present with unexplained bruises or welts. (5) Other signs include malnutrition, open sores, dehydration, sudden onset patch-like hair loss, and unexplained fractures. (6) Absence of other signs and spontaneous bruising under observation point away from abuse in this case.

Hemophilia is a generic term that covers a group of hereditary genetic disorders that prevent appropriate coagulation. (7) The spectrum of hemophilia runs from mild – typically only found after surgery or trauma, to severe – often evident at birth. Moderate disease can (rarely) present later in life with spontaneous bleeding, but typically presents with pain in weight bearing joints.

Senile purpura are dark, irregularly shaped hemorrhagic areas due to abnormal skin mobility that tears small blood vessels. (8) Aging causes this through gradual atrophy of perivascular connective tissue, almost exclusively on the extensor surfaces of the hands and arms.

Thrombocytopenic purpura could refer to either the idiopathic (ITP) or thrombotic (TTP) etiology. (9, 10) Both are characterized by thrombocytopenia, but can be clinically anticipated with a history of recent viral exanthema, upper respiratory illness, malignancy, and antiplatelet drugs. ITP is rare in adults, and TTP typically presents with other clinical signs to include neurologic findings, decreased renal function and fever. Diagnosis can be excluded with normal platelet count, but absence of supporting clinical evidence prevents delay in alternative diagnosis.

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Summary Table

Condition	*Characteristics*
Physical abuse	Unexplained bruises, particularly in combination with one or more of the following: malnutrition, open sores, dehydration, patch-like hair loss and unexplained fractures.
Hemophilia	Onset typically at birth or after surgery or trauma, in moderate cases the presenting symptom is typically pain in weight bearing joints.
Senile Purpura	Typically limited to extensor surfaces of hands and arms.
Iatrogenic coagulopathy	Can present on achieving therapeutic dosage of any standard anti-platelet therapy. Over time presents more commonly with changes in dose or addition of interactive medications. SNRIs and their newer metabolite formulations increase risk.
Thrombocytopenic Purpura	ITP typically presents in the young after viral illness, TTP typically with one or more other symptoms to include neurologic findings, decreased renal function and fever.

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