

The SASH Phenomenon:

Calling Attention to the Natural History of Diseases

Herbert L. Fred,† MD, MACP

†Dr. Fred died 30 December 2018. This is one of his final papers.

Heeding the natural history of diseases can improve diagnostic accuracy, promote proper management, and reduce the number of erroneous conclusions.¹ Yet with so much emphasis these days on treatment—often before a specific diagnosis is established or even sought—the natural history of most diseases never unfolds. As a result, I dare say that most current practitioners do not consider this aspect of clinical medicine in their approach to patient care. I think they should. Hence, this editorial.

In 1962, I helped care for a young boy with homozygous sickle cell disease whose serum bilirubin concentration hovered around 100 mg/dL during 3 weeks of hospitalization. Without having the luxury of modern technology at our disposal, we were unable to determine the precise mechanism of his jaundice. Therefore, we didn't know with certainty whether its cause necessitated medical management or surgical intervention.

As a last-ditch measure to avoid exploratory celiotomy, we ordered a trial of empiric steroid therapy—a common practice at that time.^{2,3} The next day, the patient's serum bilirubin concentration began to fall, and by the end of a week, it had plummeted to near-normal levels. We naturally assumed that the steroids had brought about the miraculous improvement, and our spirits were high. But the elation was short-lived. We discovered that, because of a clerical error, the patient had not received the steroids.

Although we had no solid explanation for the bilirubin's precipitous drop, the case left an indelible mark. It taught me how easy it is for doctors to draw wrong conclusions from a given case and how likely it is for them to take credit at times for something that Mother Nature or a higher power has done.

Four years later, in 1966, Leon Schiff, a renowned U.S. gastroenterologist, presented the case of a young woman with acute viral hepatitis for whom he had contemplated administering steroids on the day her serum bilirubin concentration had peaked at 25 mg/dL.⁴ But because the patient had diabetes mellitus, he withheld the order. Nevertheless, over the next 5 days, the woman's serum bilirubin concentration decreased to 5 mg/dL, and her condition progressively improved. Schiff said that if the patient had been given steroids, her favorable outcome might well have been attributed to their use.

For me, Schiff's report was particularly noteworthy. Not only did it describe a patient whose clinical circumstances were like those of our patient, but it also supplied a name for the situation: SASH phenomenon (Steroids Almost Started Here). According to Schiff, Dr. Harold Conn of Yale University Medical School had coined this label. I could find only one other mention of this entity in the available medical literature.⁵

The SASH phenomenon vividly shows that clinical improvement of any illness in association with any form of therapy does not necessarily indicate a cause-and-effect relationship. Indeed, the improvement might simply be (and I believe often is) fortuitous. Unfortunately, the SASH phenomenon never got the publicity and resultant awareness that it deserved. So let this editorial be the start of its resurrection.

References

1. Huff RW, Fred HL. Postictal pulmonary edema. *Arch Intern Med* 1966;117(6):824-8.
2. Summerskill WH, Jones FA. Corticotrophin and steroids in the diagnosis and management of obstructive jaundice. *Br Med J* 1958;2(5111):1499-502.
3. Williams R, Billings BH. Action of steroid therapy in jaundice. *Lancet* 1961;2(7199):392-6.
4. Schiff L. The use of steroids in liver disease. *Medicine (Baltimore)* 1966;45(6):565-73.
5. Castell DO. The gastroenterologist corner—use of corticosteroids in liver disease. *U.S. Navy Medical Newsletter* 1970;55(4):19-21. Available from: <https://archive.org/details/NavyMedicine197004> [cited 2015 Jul 17].