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Sickle crisis

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Sickle cell anemia is one of the major health problems for individuals of West African ancestry. In its homozygous form, infected individuals are apt to be recurrent sufferers of painful crises occurring throughout all the years of a shortened life. A typical crisis often engenders a trip to the ER. For some, it is at least a monthly visit, excruciatingly unpleasant both physically and psychologically.

Sickle cell sufferers, by and large, do not usually shop around for caregivers. Their activities are often limited by their blood dyscrasia even during pain-free intervals, so they tend to come back time and time again to the same ER where they are generally well known to the admitting and nursing staff. Often their crises are stereotypical in onset and in the site and type of pain. Consequently, what might be an important and effective treatment in one episode can be done again the next time. After a while, certain investigations that were carried out initially may not be needed at later crises as the patient returns for a tenth or twentieth visit.

Yet, the accumulation of experience by ancillary ER personnel about the patient is often not appreciated by resident and attending physicians in an ER setting, especially in academic medical centers. The rotation system, which necessarily characterizes internal medicine residency programs, allows more cross-sectional than longitudinal interactions between the acutely ill and their treating physicians. In institutions with dedicated emergency residency training programs the opportunities for continuity of care of ER patients are greater, but here, too, it has been my experience that a peculiar form of amnesia prevails whenever sickle patients return for their next sojourn in the ER.

When I trained 30 years ago our hospital had a roster of sickle cell disease sufferers who every time they came to the ER had one or several chest X-rays. I calculated that one 42-year-old man, who had visited regularly since he was 16, received more than 5000 rads (50 Gy) to his lungs over this interval—a tumoricidal and possibly a mutagenic dose. In effect, we added insult to illness. Almost every one of these admissions was the same in intensity, character, and duration. In my recollection, no chest X-ray ever influenced treatment except to confirm that no pneumonia was present.

Today I see little change in our inability to adapt our responses to a chronic condition with acute recurrences. It seems that, no matter how often the sufferer returns to the ER, he is treated like he has never been here before. One might say we are behaving like Alzheimer patients caring for sickle patients. Only today, not only do we get a chest X-ray, we often include a multidetector CT pulmonary embolus study, which brings with it an increased radiation burden per study and an obligatory intravenous infusion that is stressful to the heart and kidneys of these patients.

Let us become more humane. Why don't we set up a dedicated team of consulting internists who should be called as soon as a regular sickle patient returns in crisis. If the consulting physician deems the attack to be once again similar or identical to previous crises, and no other findings are discerned by history, laboratory data, and physical examination, then we should proceed to institute supportive treatment without imaging. In such a scenario, radiology rarely helps, rather it wastes time, money, and radiation.

I believe the sickle cell consultation team concept is an idea long overdue. If we are interested in aligning imaging utilization to effective care, we should make our voices heard on this matter.

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