

Comparative Views in Childhood Fractures

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I have advocated the use of routine comparative views in childhood fractures for over 25 years. Almost everywhere that I have presented my position on the subject, I have had the following responses: (1) non-pediatric-oriented radiologists obtain comparative radiographs and agree with my policy, and (2) heavily pediatric-oriented radiologists (i.e., those in pediatric hospitals) almost always say that comparative views are not needed. I maintain, however, that, to detect subtle fractures, comparative views are essential. In fact, almost every time that I present my lecture on this subject, radiologists come to me after the lecture and say, "you scared me a little; I'm pretty sure I missed some of those fractures you've shown." So why is there controversy?

One of the first objections to the obtaining of routine comparative radiographs is that it increases radiation exposure to the child. In reality, however, radiation exposure is negligible (10 millirads per exposure), so the argument is weak. Indeed, whether one examines one side or both sides basically is insignificant in terms of radiation exposure.

The next objection to comparative views is that they are cost prohibitive. However, let's take a look at cost and

decide whether it is prohibitive. With the hip and the shoulders, one obtains comparative views routinely because the joints should be on the same radiograph. With the wrist and ankle, three views are obtained. If these views are obtained on a single radiograph, the increase in number of films to obtain comparative views is two films. With the knee, anteroposterior (AP) and lateral views are obtained. The AP view of both knees can be obtained on a single radiograph, whereas both lateral views require separate radiographs. So the increase in numbers of film is one. With the elbow, most often AP and lateral views suffice. The AP view of the elbows can be obtained on a single radiograph, so the extra film usage with the elbows would be the same as with the knees, that is, one film. On the average, an 8 × 10 film costs \$0.41, and a 10 × 14 film costs \$0.56. The overall charge for, say, three views of the wrist is \$30.00 professional and \$100.00 technical. The technical charge includes the cost of the film. Let's say we use two extra films to obtain comparative wrist views. That amounts to \$0.82 or \$1.12 extra cost to the hospital or business. I can't believe that this cost could not be absorbed.

The next most common negative comment I hear regarding comparative

views, almost invariably from pediatric radiologists, is that "I don't need them" or that "I get them only when I need them." I say to these people, "How do you know when you need a comparative view? If you are missing a fracture, then how are you going to know that you need a comparative view? In fact, you don't."

Finally, there is no question that radiologists constantly dealing with children can detect more subtle fractures on noncomparative views than other radiologists. However, most pediatric radiographs are examined by nonpediatric radiologists, many of whom see children infrequently. My guess would be that the nonpediatric radiologists obtain comparative views frequently, while the pediatric radiologists do not. The question is, should you form policy for the minority or the majority? I believe it is wiser to form policy for the majority.

Obviously, there are other views on this topic, and this editorial presents only one view. In my opinion, however, it is difficult to construct a strong argument against the obtaining of comparative views in children, with the exception, perhaps, of those cases in which deformity clearly is present.