Primary care doctor follow up of buckle fractures of the forearm

A buckle fracture of the distal radius (wrist bone) is a very minor fracture and the most common fracture in childhood. A “buckle” fracture occurs when there is a wrinkling of the outer edge of the bone due to compression, usually after a fall. These fractures are very stable and heal well with a splint that supports the injured wrist but can be taken on and off by the patient. Right now, most of these fractures are seen by orthopedic surgeons, but there is little role for this type of specialist since these injuries heal very well on their own and most children just need advice on when to return to sports and how long to wear the splint. Therefore, it may be appropriate for follow up of these common injuries to occur in a less specialized and more convenient venue like a primary care doctor’s office.

AP and Lateral X-rays of a Distal Radius Buckle Fracture

The main objective of this study was to see what happened if patients with distal radius buckle fractures initially seen in the emergency department were then referred to a primary care doctor’s office. Specifically, we wanted to measure how many children successfully followed up with the primary doctor and how many needed a specialist opinion (e.g. orthopedic surgeon or emergency department visit) either before or after the visit to the primary care doctor. This study included children aged 2-17 years diagnosed with a buckle fracture of the distal radius and were recruited from a large urban children’s emergency department. All families received a follow up phone call 28 days after the emergency department visit. At this time, we asked families about how the child was doing and how satisfied they were with following up with their primary care doctor. Families were also asked about any advice their primary care doctors had given them about how long to wear the splint and when they should return to their usual physical activities.

The study showed that the vast majority of recruited patients (87.2%) received follow up for this injury exclusively with the primary care doctor. The remainder (12.8%) of children ended up seeing another emergency department physician, an orthopedic surgeon or opted out of any physician follow up at all. Of note, none of the patients seen for a second opinion were given a different diagnosis or management. Interestingly, only about half (47%) of patients reported receiving advice about duration of splint use and timing for return to sports from their primary care doctor; despite this, parents took initiative and used the splint as was needed for symptoms. For most patients (68.3%), children were in a splint regularly for less than three weeks, and almost all (98.8%) patients returned to normal activities within four weeks. Finally, the study also found that 95.1% of surveyed parents reported being either satisfied or very satisfied with the strategy of follow up with their primary care doctor for this injury.

In conclusion, this study provides evidence that the majority of children with buckle fractures of the distal radius were followed up successfully by their primary care doctor. This study also suggests that primary care doctor follow up is both safe and feasible, and families were satisfied with this approach.. However, only about one half of participating families reported receiving advice regarding duration of splint usage and return to normal activities from their primary care doctors. This may represent an opportunity for further education of primary care doctors on the management of these minor common injuries so that follow up visits in this venue are more routinely informative about anticipatory guidance for immobilization and return to activities.

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Publication

Primary Care Physician Follow-up of Distal Radius Buckle Fractures.
Koelink E, Schuh S, Howard A, Stimec J, Barra L, Boutis K
Pediatrics. 2016 Jan