Musculoskeletal Complications of Fluoroquinolones: Guidelines and Precautions for Usage in the Athletic Population


Article Summary

Adverse musculoskeletal side effects have been well documented with the use of fluoroquinolone antibiotics.

In 2008, the US Food and Drug Administration (FDA) placed a black box warning, as well as further medication recommendations, on all fluoroquinolones due to the increased risk of developing tendinitis and/or tendon rupture.\[1\]

A review of the current literature by Dr. Hall and colleagues discusses potential mechanisms of pathology, identifies risk factors, and proposes updated guidelines in the athletic population, which include:

1. Avoid fluoroquinolone use unless there is no alternative.
2. The coaching and athletic training staff should be made aware of the use.
3. Corticosteroids should not be utilized in conjunction with fluoroquinolones.
4. Consider concomitant magnesium and/or antioxidant use.
5. Training routines should be reduced in intensity and volume once antibiotics are started. A graduated return to full activity should be implemented so long as the patient remains asymptomatic after the antibiotic course is finished.
6. All athletic activity should be stopped if any adverse reactions are experienced.
7. The patient should be monitored for 1 month after completion of antibiotics.
**Viewpoint**

Fluoroquinolones are associated with a number of side effects, which include not only musculoskeletal issues but also cardiac arrhythmias, central nervous system disorders, photosensitivity, rashes, hepatic and renal dysfunction, and disorders of glucose homeostasis.\[1\] While fluoroquinolones antibiotics are one of the most commonly used class of antibiotics, caution should be used in higher-risk patients, such as athletes, who are more likely to incur musculoskeletal injuries. Caution should also be used when prescribing fluoroquinolones to the pediatric population or when the patient has had recent corticosteroid exposure.

The FDA and the American Academy of Pediatrics both have put forth recommendations cautioning use of fluoroquinolones, particularly in higher-risk patients. In conjunction with these recommendations, the guidelines from this article and education of the general public may help to mitigate the incidence and severity of such musculoskeletal injuries in active adults and children alike.\[1,2\]

**Abstract**


**Referências**

**References**
