

# Gymnast Wrist

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## History

13 year old male with wrist pain during gymnastics

## Diagnosis

Gymnast wrist

## Discussion

Gymnast wrist represents a chronic physeal stress injury. This is manifested on radiographs as physeal widening and metaphyseal irregularity. The radius is primarily involved as the ulna does not bear much of the loading forces.

Metaphyseal injury likely results in ischemia to the zone of hypertrophy, disruption of the ZPC and metaphyseal cartilage rests which contribute to the metaphyseal undulation and irregularity.

The changes may result in premature physeal closure, ulnar overgrowth and ulnar impaction syndrome or madelung type deformity.

Differential includes rickets, SH I injury.

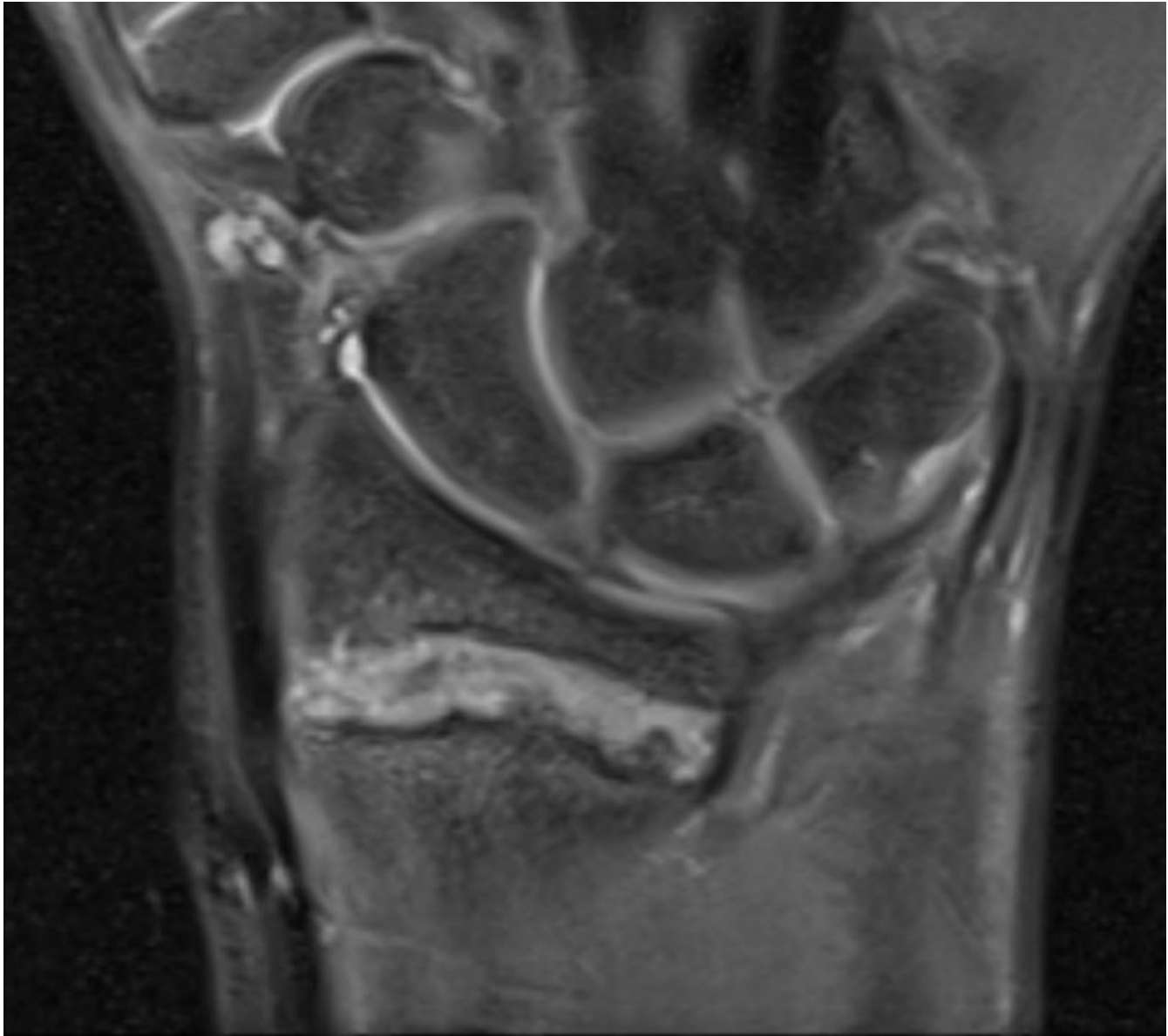
## Findings

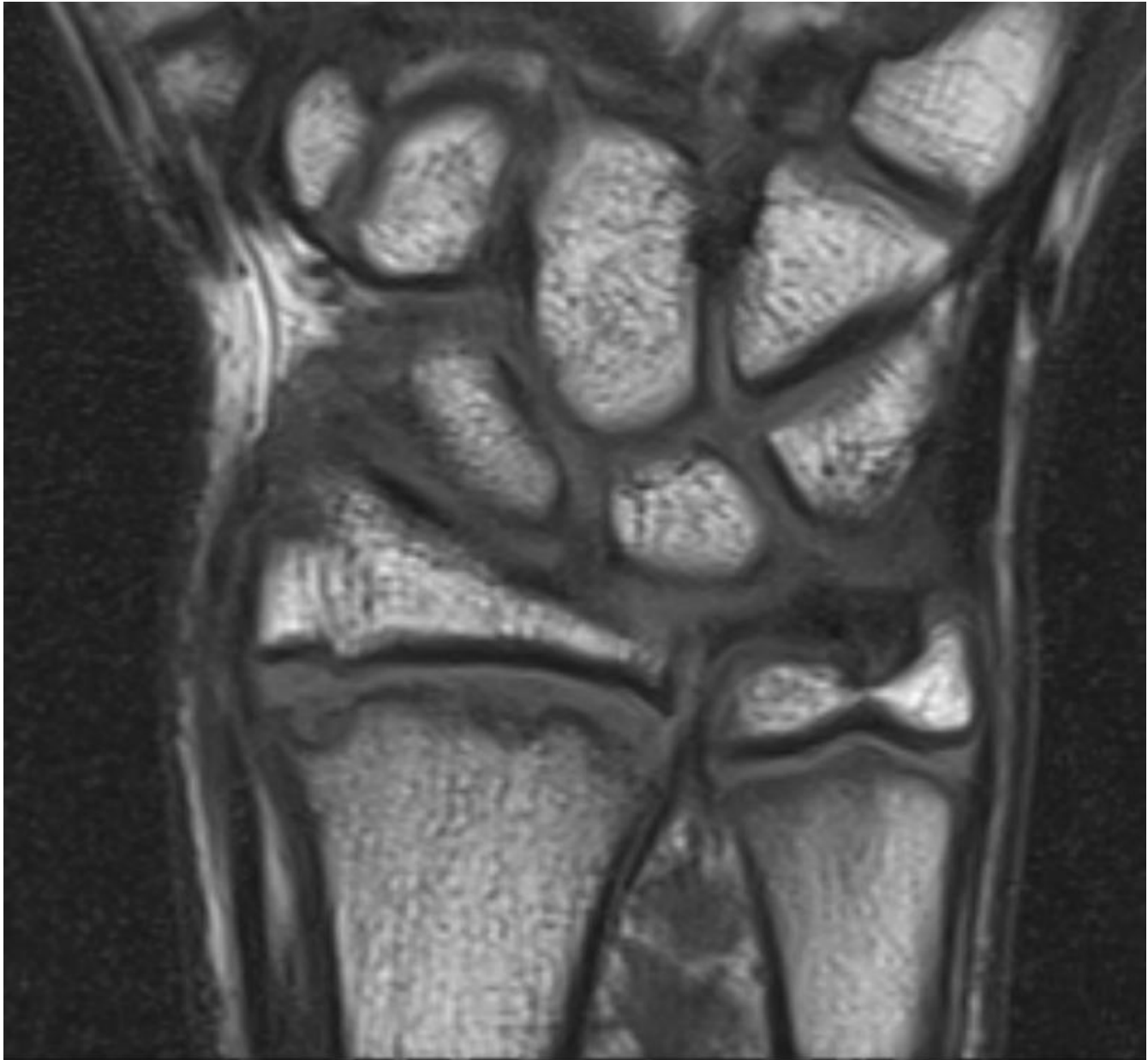
Widening and irregularity of the distal radial physis. Cartilage invagination into the metaphysis. No significant marrow edema or soft tissue edema. Relative sparing of the distal ulna.

## Reference

Pediatric and adolescent MSK MRI: J Herman Kan.

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