Case 4

History
Pain at forefoot.

Diagnosis
Freiberg's Infraction.

Findings
There is flattening, fragmentation and sclerosis involving the third metatarsal head. There is cortical thickening of the adjacent meta-diaphyseal region of the metatarsal. The adjacent proximal phalangeal exhibits irregularity, broadening and sclerosis at its base.

Discussion
Freiberg's infraction affects women three to four times more commonly than men and is most commonly seen in adolescent girls ages 13 to 18 years. The second metatarsal head is most commonly involved and experimental studies have indicated that this digit is most vulnerable secondary to its relative length. The third and fourth metatarsals may be involved, but the first digit is rarely affected.

Pathogenesis remains speculative but likely involves repetitive trauma as the inciting event. Pathologically, osteonecrosis is present. The radiographic findings are virtually pathognomonic and consistent with osteonecrosis at a characteristic site.

References

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