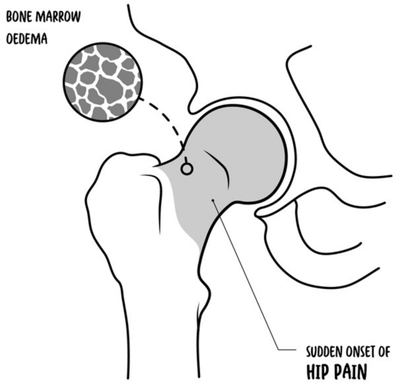
TRANSIENT OSTEOPOROSIS

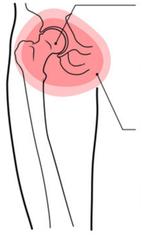
BONE — POROUS / LESS DENSE, REDUCED BONE STRENGTH

TEMPORARY AND SELF-LIMITING, RESOLVING WITHIN MONTHS

PREDOMINANTLY AFFECTING
HEALTHY MIDDLE-AGED MEN
WOMEN IN THE THIRD TRIMESTER



CLINICAL PRESENTATION



ACUTE / SUBACUTE ONSET
UNILATERAL HIP PAIN → LIMPING

- WORSENS WITH WEIGHT-BEARING
- IMPROVES WITH REST

↓ RANGE OF MOTION

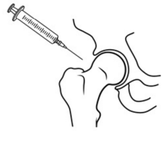
GROIN OR BUTTOCK

WALKING AIDS

NO PRECEDING TRAUMA
NO SYSTEMIC SIGNS OF INFLAMMATION → **LABORATORY INVESTIGATIONS**
(CRP, ESR, INFLAMMATORY MARKERS)
WITHIN NORMAL LIMITS

MANAGEMENT & PROGNOSIS

PROTECTED WEIGHT-BEARING
ANALGESIA, AND PHYSIOTHERAPY → COMPLETE SYMPTOM RESOLUTION WITHIN **6–12 MONTHS**



IMAGING
REVERSAL OF BONE MARROW OEDEMA
RESTORATION OF NORMAL BONE DENSITY

RECURRENCE IS UNCOMMON
OCCASIONALLY - CONTRALATERAL HIP

THEORIES
PATHOPHYSIOLOGY

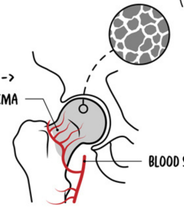
HORMONAL INFLUENCE

IN PREGNANCY

↑ BONE TURNOVER, SUSCEPTIBILITY TO DEMINERALISATION

TRANSIENT DISTURBANCE IN **BONE VASCULARITY**

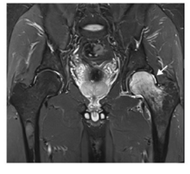
MICROVASCULAR SPASM
VENOUS OUTFLOW OBSTRUCTION
↑ INTRAOSSEOUS PRESSURE → REGIONAL ISCHEMIA -> BONE MARROW OEDEMA



IMPAIR BLOOD SUPPLY

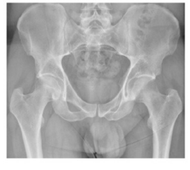
NEUROGENIC FACTORS
ALTERED SYMPATHETIC NERVE ACTIVITY

DIAGNOSIS | IMAGING



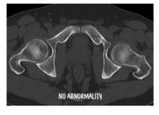
MRI
DIFFUSE BONE MARROW OEDEMA
WITHOUT SUBCHONDRAL FRACTURES OR COLLAPSE

TINNELL J, TRANSIENT OSTEOPOROSIS OF THE HIP CASE STUDY, RADIOPAEDIA.ORG



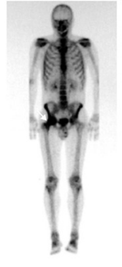
X-RAY
MAY BE NORMAL
DIFFUSE OSTEOPENIA

TINNELL J, TRANSIENT OSTEOPOROSIS OF THE HIP CASE STUDY, RADIOPAEDIA.ORG



CT
MAY SHOW DECREASED DENSITY

SOFIANE Z, TRANSIENT OSTEOPOROSIS OF THE HIP CASE STUDY, RADIOPAEDIA.ORG

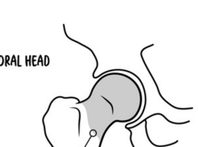


BONE SCAN
INCREASED UPTAKE IN THE AFFECTED HIP

RADSWIKI T, TRANSIENT OSTEOPOROSIS OF THE HIP CASE STUDY, RADIOPAEDIA.ORG

Armando H. Faigl

TRANSIENT OSTEOPOROSIS
REVERSIBLE BONE MARROW OEDEMA
NO STRUCTURAL COLLAPSE OF THE FEMORAL HEAD

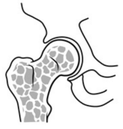


AVASCULAR NECROSIS
STRUCTURAL BONE COLLAPSE
PERMANENT JOINT DAMAGE

↑ OSTEOCLASTIC ACTIVITY
NO NECROSIS / FIBROSIS

PAIN
BONE MARROW OEDEMA
INTRAOSSEOUS PRESSURE -> NOCICEPTORS

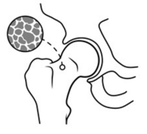
INFLAMMATORY
VASCULAR IN NATURE



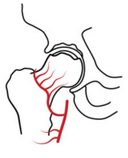
OSTEOPOROSIS
NOT PAINFUL (UNTIL A FRACTURE)
SILENT, GRADUAL THINNING

HISTOLOGICAL
→ RESOLVE SPONTANEOUSLY OVER TIME

DIFFERENTIAL DIAGNOSIS

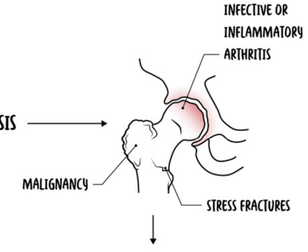


TRANSIENT OSTEOPOROSIS



AVASCULAR NECROSIS
SIMILAR CLINICAL AND RADIOLOGICAL APPEARANCE

-> SUBCHONDRAL COLLAPSE, JOINT DESTRUCTION



ABSENCE OF SYSTEMIC SYMPTOMS
NORMAL INFLAMMATORY MARKERS
SELF-LIMITING COURSE