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The year '2025' is displayed in a large, bold, black serif font. A small circular seal of the Government of Karnataka is positioned between the '0' and the '2'. The seal features a central emblem with a figure, surrounded by text in Devanagari script.

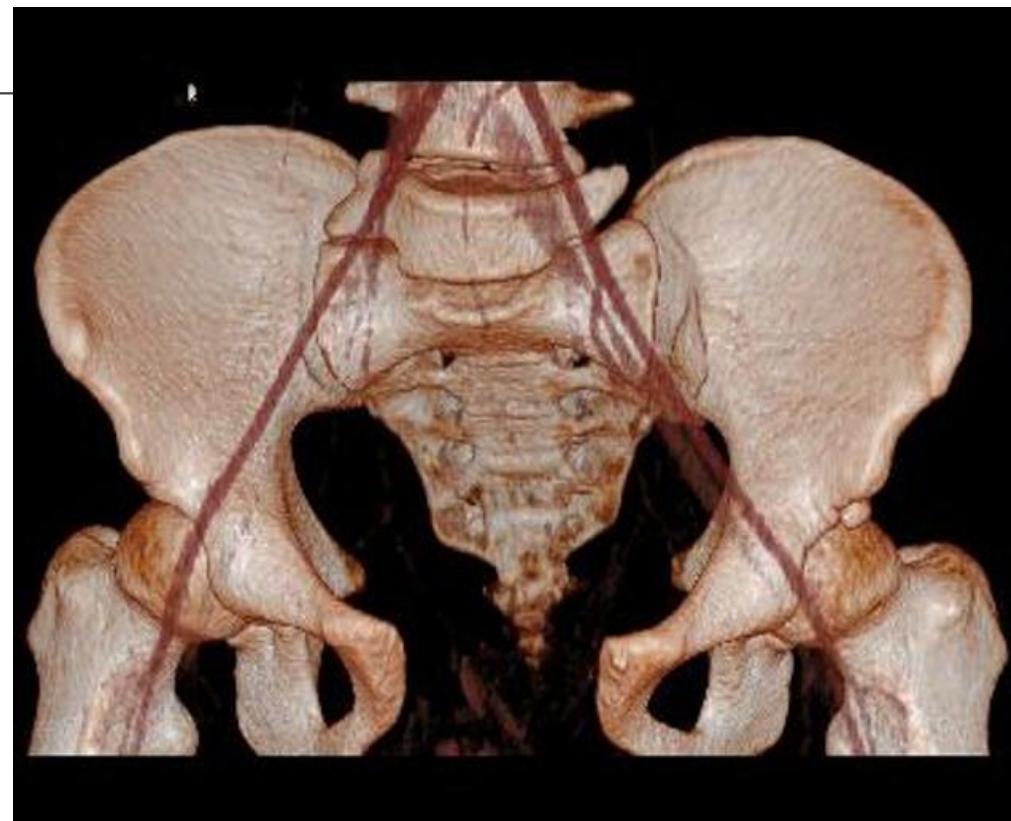
**KARNATAKA RADIOLOGY EDUCATION PROGRAM**

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# SPOTTERS

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## DX: Open book fracture of Pelvis

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- It is the result of antero-posterior compression injury to the pelvis. This fracture consists of symphysis pubis diastasis or fracture of pubic rami, and disruption of the sacroiliac joints.



## DX: Fibrous dysplasia

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- It can be monostotic (~75%) or polyostotic (~25%), in the latter the tibia and the foot are common locations.



## DX: Isolated Spade Phalanx

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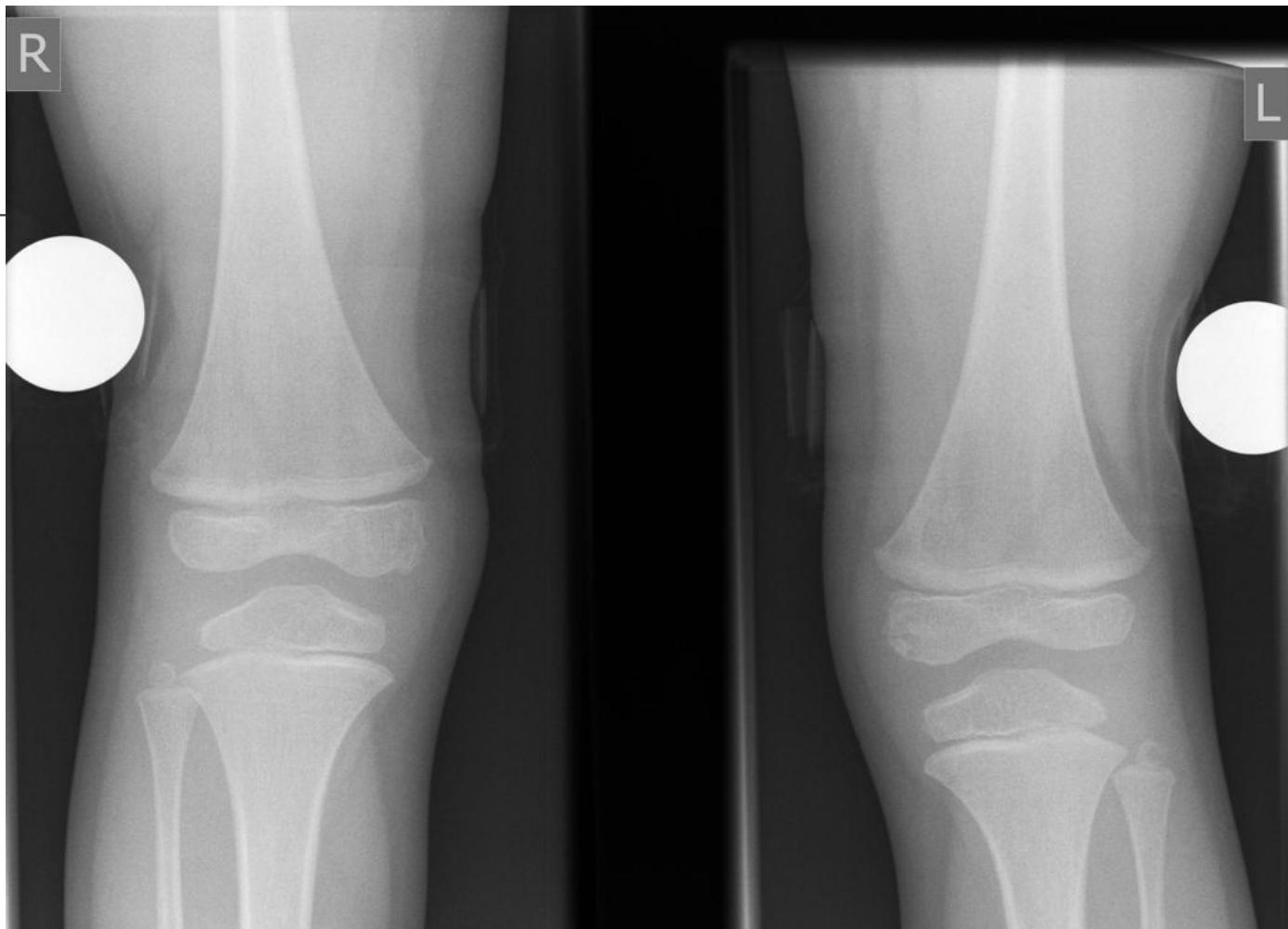
- Spade phalanges refer to a distinctive morphology of the distal phalanx in which the distal phalangeal tuft is widened and resembles the business end of a garden spade.
- **The classic association of spade phalanges is acromegaly.** The thought is that stimulation of new bone proliferation affects the hand characteristically at the distal phalanx (from excess GH, IGF-1 (insulin-like growth factor) and somatomedin-C). Often in the setting of the acromegalic hand, there is widening of the MCP, PIP, and DIP joint spaces (somatomedin-C affects chondrocytes as well), which was not seen in this patient.
- Spade phalanx may also occur as a normal variant, as in the above case. "Spur-like" excrescences may also occur with degenerative change. Look for a cluster of associated acromegalic changes before attributing a spade phalanx to acromegaly.



## DX: Lisfranc fracture-dislocation

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- Lisfranc fractures are fractures involving the tarsometatarsal joint complex of the foot. They are relatively rare injuries that compose approximately 0.2% of all fractures. The injury mechanism often includes an indirect force such as a twisting force on the ankle as seen in this patient. Classically, this injury involves fractures and/or associated dislocation of the metatarsals. Treatment includes open reduction and internal fixation of the midfoot.



## Absent patella – Nail patella syndrome

**BACKGROUND**

- \* RARE GENETIC SYNDROME CHARACTERIZED by UNUSUAL CHANGES in NAILS, KNEECAPS, ELBOWS, ILIAC BONES, & ↑↑ RISK for GLAUCOMA & KIDNEY FAILURE
- ~ "HEREDITARY ONYCHO-OSTEODYSPASIA" or "FONG DISEASE"



### SIGNS & SYMPTOMS

- \* APPARENT at BIRTH or EARLY CHILDHOOD
- \* RANGE of SEVERITY
- \* LEAN, ↓↓ MUSCLE MASS in UPPER ARMS & LEGS
- \* PROBLEMS GAINING WEIGHT & MUSCLE MASS
- \* ABSENCE or UNDERDEVELOPMENT of FINGERS & TOENAILS
  - ↳ THUMBNAILS & 5<sup>th</sup> TOENAILS AFFECTED:
    - SMALL, NARROW, SPLIT, DEPRESSED, or DISCOLORED
    - CAN APPEAR RIDGED PITTED, SEPARATED LONGITUDINALLY or THIN
- \* CAPITELLUM & RADIAL HEAD MALFORMED or UNDERDEVELOPED
- \* EXCESS SKIN WEBBING NEAR ANTECUBITAL AREA
- \* RANGE of MOTION LIMITED at ELBOW
- \* PATELLAE MALFORMED, UNDERDEVELOPED, or ABSENT
- \* BOW-LEG DEFORMITY
- \* ILIAC HORNS
- \* LESTER SIGN (DARK PIGMENTATION around IRIS RESEMBLING CLOVER LEAF or FLOWER)
- \* OPEN-ANGLE GLAUCOMA
- \* KIDNEY DISEASE: MICROHEMaturia & PROTEINURia

**TREATMENT**

- \* NO CURE
- \* SYMPTOM MANAGEMENT

### CAUSES

- \* GENETIC MUTATION
  - ~ AUTOSOMAL DOMINANT
  - ~ LMX1B
- \* IDIOPATHIC



### DIAGNOSIS

- \* CLINICAL PRESENTATION
- \* FAMILY HISTORY
- \* GENETIC TESTING





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SCURVY – subperiosteal hemorrhage

