

# The situation luckily didn't get out of hand

## A case of Phalangeal Microgeodic Syndrome

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### CASE-REPORT

Male, 26y  
Painless swelling digit IV-V right hand since 1w

#### History

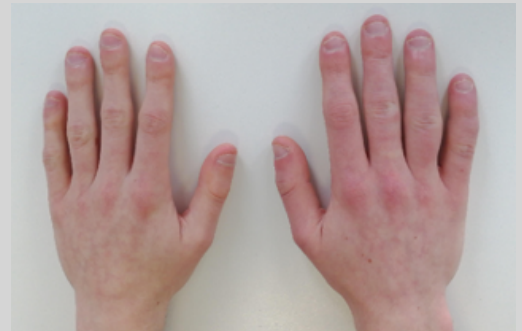
- Similar episode 2m ago, spontaneous resolution
- No general symptoms, recent illness, Raynaud signs
- Brother: rheumatoid arthritis

#### Clinical examination

- Redness + swelling
- No other skin abnormalities
- Normal capillary refill & peripheral pulsations

#### Further investigations

- Blood analysis: negative auto-immune serology
- Capillaroscopy: normal
- Radiography/ultrasound: soft tissue swelling, no (teno)synovitis
- MRI (T2 image):
  - Bone marrow edema
  - Soft tissue swelling



### DISCUSSION

#### Phalangeal Microgeodic Syndrome (PMS) = Transient Phalangeal Osteolysis

##### General

- Benign, self-limiting (3-6m)
- Mostly children (mean age 4,5y)

##### Clinical manifestation

- Swelling +/- redness +/- mild pain
- Mostly fingers, sometimes toes
- Mostly middle phalanx, followed by proximal phalanx

##### Complications

Rare; pathological fracture, phalangeal shortening, angulation deformity

#### Pathogenesis

Unclear, most accepted theory:  
(Cold injury) leading to a vasospasm which causes vascular insufficiency and bone necrosis

#### Diagnosis

- Clinical findings + radiography (showing small geode-like areas of osteolysis with sclerotic rim)
- Doubt / normal X-ray?
- Do an MRI:
  - More sensitive & specific than radiography
  - Confirm the diagnosis & shows the true extent of PMS

#### Treatment

Conservative

### CONCLUSION

We present this case because we have the impression that PMS is still an **unknown entity** which might be **underdiagnosed**. It is important to recognize PMS in time to **protect patients** from more (sometimes invasive) **investigations**.

### REFERENCES

- Lee et al. Phalangeal microgeodic disease: report of two cases and review of imaging. *Skeletal Radiol* 2013.
- Yang et al. Phalangeal microgeodic syndrome in childhood. *Pediatr Radiol* 2018.
- Radhakrishnan et al. Diffuse phalangeal signal abnormality on magnetic resonance imaging: phalangeal microgeodic disease. *Pediatric Radiol* 2017.

