

# Differential diagnosis of lower limb swelling

- Bilateral swelling DK - literally. systemic diseases .
- Unilateral swelling DK - no. deep vein thrombosis or cancer .

## Anamnesis

- Emergence of swelling - suddenly (HT), slowly ( cardiac insufficiency );
- soreness ( HVT , Baker's cyst );
- after long-term immobilization (HŽT);
- after trauma (muscle rupture, fracture, compartment syndrome );
- accompanying onema (cardiac/renal insufficiency, liver cirrhosis ), cancer (especially small pelvis), influence of drugs ( BKK , corticoids , NSAIDs ).

## Examination

### Physical exam

- Reddish hot skin – erysipelas , Deep Vein Thrombosis (DVT);
- compressible edema – cardiac, renal, hepatic edema;
- incompressible swellings ( lymphatic , lipidedema ).

### USG examination - 3D Doppler

- Vein patency.

## Differential diagnosis

- **Vascular etiology;**
  - DVT (unilateral, acutely formed, elastic, painful swelling - possibly with hot, tense skin);
  - thrombophlebitis (inflamed subcutaneous vein - a red, painful strip to the touch);
  - varices (one/bilateral compressible swelling, increasing during the day, decreasing with positioning);
  - chronic venous insufficiency /=CVI (unilateral/bilateral swelling, mostly with skin changes and/or leg ulcer );
- **neurological etiology** (paresis for blood flow stasis for unilateral angioparesis, tendons are not usually affected);
- **cardiac etiology** (right-sided insuf. – bilateral compressible on the instep and lower leg, characteristically increase after exertion, are smallest in the morning);
- **hypoproteinemic swellings** (in hepatopathies – cirrhosis, renal – nephrotic syndrome , acute glomerulonephritis , protein loss in exudative enteropathy);
- **lipedema** (chronic bilateral painless incompressible swelling – most obese women, with skin changes of the orange type, characteristically the insteps and tendons are spared);
- **lymphedema** (chronic unilateral/bilateral swelling, characteristically affected also the insteps and tendons, the leg has the shape of a post, in extreme cases the development of elephantiasis );
- **pharmacologically conditioned** (nifedipine, glucocorticoids , vasodilators, NSAIDs, hydralazine, minoxidil,...);
- **endocrine etiology** (typically bilateral);
  - Basedow's disease (incompressible, pretibial myxedema, pasty skin, bluish-red, coarse pores);
  - hypothyroidism (generalized myxedema, especially in the face and all limbs);
- **traumatic etiology** (mostly one-sided swelling, history of fracture, untorn meniscus, etc.);
- **postoperative** (reperfusion swelling after vascular procedures (bypass, removal of vessel obliteration), great pain, the area is hot, often after removal of the great saphenous vein /=VSM);
- **compartment syndrome** ;
- **neoplasia** (typically unilateral in tumors – e.g.: tumors in the small pelvis, local swelling in osteosarcoma , Ewing's sarcoma );
- **inflammatory etiology** ( erysipelas – red, painful swelling, we look for the entrance gate of the infection + we check vaccination against tetanus and possibly revaccinate);
- **Baker's cyst** (unilateral soft swelling in the popliteal fossa, palpable resistance, USG examination is diagnostic).

## Links

## References

- GESENHUES, S and R ZIESCHÉ. *Vademecum doctor*. 1st Czech edition. Prague: Galén, 2006. ISBN 80-7262-444-X . <sup>[1]</sup>

