Chopart amputation and prosthetic care on a diabetic foot

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Trophic ulcer, osteomyelitis

- Partial foot amputation at the distal part of the foot (toe or metatarsal level) in dysvascular patients
- The most common problem: the trophic ulcer
- The inflammation and necrosis reach the bones and joints very often, causing severe bony destruction.
- OM, Charcot-foot, DOAP

Localisation of the disorder and surgical treatment
- One or more toe (resection of the toe)
- MTP joint, metatarsal bone (toe and metatarsal resection)
- Pressure sour on the middle part of the longitudinal arch (resection of the bony bump, exostosis)
- Under the heel bone (resection of the calcaneus)
Partial foot amputation

- The level of the amputation is determined by blood circulation and partly biomechanical reasons

- Non-operative treatment, if no OM or serious infection (total rest, wound care, antibiotics, plaster cast, orthoses, diabetic shoes)

- Surgical treatment necessary if non-operative procedures ineffective

- The aim (stump as long as possible, on distal level)
Chopart amputation

- Chopart amputation
  - Metatarsal bones and tarsal bones are affected severe destruction and osteomyelitis
  - The talus és calcaneus bone are intact
- Clinical state
  - Good arterial circulation
  - Condition of the bones and soft tissues
  - Equinus position of the foot (muscle disbalance)
  - Mostly traumatic cases, and rare in dysvascular cases
- Tarsal amputation is rarely performed in diabetic neuropathy!
Chopart amputation – a case report

- male  born in 1949
- DM2T  1982
- II.-III.-V. toe resection
- Infection of the foot, necrosis of the soft tissues, fewer, septic condition
- Clinical state
  - Abscess, instability, crepitation, hypaesthesia, good blood circulation
Chopart amputation – a case report

- Radiological signs
  - The toes, the metatarsal bones and tarsal bones were affected severe destruction and osteomyelitis, but the talus and calcaneus was intact
  - Chopart amputation was performed, because soft tissue conditions were so good
Chopart amputation
Prosthetic care

- The postoperative protocol was similar to the toe or metatarsal amputation
- Mobilisation with wheelchair
- Walking exercises
- MRSA wound infection
- Soft dressing of the stump
- Temporary orthotic care (AFO)
- Prosthetic care
  - Laminated prostheses
  - Silicone
Prosthetic care

- The prosthetic care: not so easy
- Fixation of the prosthesis on the stump use to be the main problem
- The prosthesis rotates around the stump if there is no total contact suspension
- Patient used this silicone prosthesis without any problem with total weight
Silicone prostheses
Silicone prostheses
Chopart amputation is rare in dysvascular cases

Blood circulation, bone destruction, soft tissue necrosis, general condition of the patient

Talus and calcaneus are intact with good soft tissue condition

Weight bearing stump

Laminated prostheses cause wounds on the stump very often

Silicone prostheses is aesthetic, good fitting, light weight, custom made

Stable and comfortable suspension

Perspiration of the skin

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Thank you very much!