



Endoscopic treatment of chronic compartment syndrome: comparison between upper and lower limb

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Materials & Methods

- Monocentric (CHU Nîmes)
- Retrospective
- Between April 2014 and January 2018
- 25 patients, 3 surgeons
- Chronic compartment syndrome (CCS)

- Judgement criteria:
 - Pain (AVS)
 - Recovery time & level



Materials & Methods (2)

Preoperative:

- Pain:
 - Middle effort Analog Visual Scale: 4,6 (0-8)
- Diagnosis:
 - Pressure measure after exercise
- Sport Level:
 - 52% leisure, 36% competition
- Sport Type:
 - Upper limb : Motocross (53,8%), Biking (15,3%), bodybuilding (15,3%)
 - Lower limb : Running 80%

Materials & Methods (3)



Inclusion criteria

- All patients with recurrent SCC symptomatology triggered by the same activity, operated by endoscopic aponevrotomy
 - Lower limb: antero-lateral compartment
 - Upper limb: Anterior and posterior compartment of forearm

Exclusion criteria

- Open treatment
- Patient already operated for an aponevrotomy.
- Patients lost before 6 months after surgery



Results

- 13 upper limb / 12 lower limb
 - 60% bilateral (lower limb, $p < 0,05$)
- Middle age 28,4 years (16—55)
- Middle follow-up: 25,5 months (2-6 years)
- Sex ratio (F): $p < 0,05$
 - Upper limb: 5/8 (42%)
 - Lower Limb: 0/12



Results (2)

- Effort AVS NS
 - Middle 1,43 (1 upper limb, 1,87 lower limb)
- Average recovery time $p < 0,01$
 - Upper limb: 3,4 month
 - Lower limb: 7,4 month
- Level decrease: (48%) $p = 0,11$
 - 3 patients completely stop (2 lower limb)
 - Upper limb: 3
 - Lower limb: 6



Results (3)

Complications:

- Postoperative Hematoma: 1
- Paraesthesia of Superficial fibular nerve: 1, resolution after 1 month
- Muscle hernia: 2, in lower limb

- 0 revision



Conclusion

Upper limb

- Better results, shorter recovery time

Lower Limb

- Rarely isolated
- Need a more comprehensive assessment than only pressures measures
- Importance of differential diagnoses
 - Trapped popliteal artery, short posterior chains, short Achilles
 - CBN, entrapment neuropathy

- Merci de votre attention