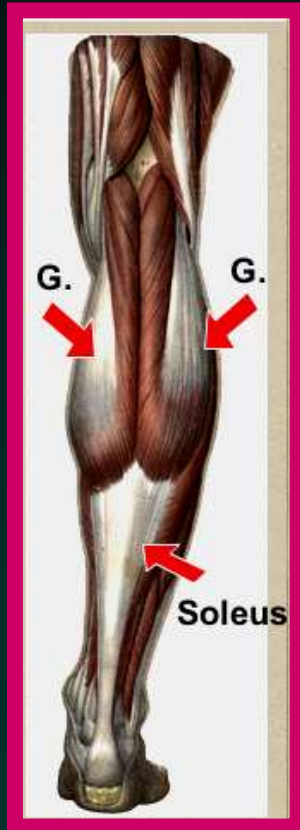




Symposium : brièveté des gastrocnémiens



Toulouse june 8-9-10th 2006



Direct signs and clinical consequences

Docteur LS Barouk

Dr P Barouk

Docteur E. Toullec





Symposium : brièveté des gastrocnémiens



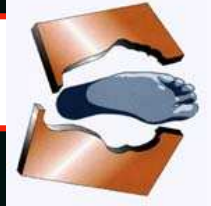
Signes directs et conséquences cliniques

« Le petit livre rouge du pied » Dr Casimir Kowalski





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Prospective study of 185 patients with gastrocnemius retraction (348 gastrocourts)

Direct signs : anamnesis

painful calf or tension	43%
cramp	16%
Difficult gait barefooted	34%

Differential diagnosis :

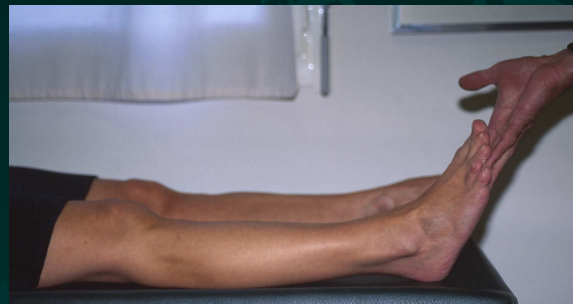
- chronic loge syndrom**
- trapped popliteal artery**
- impatiences**
- accessory solear muscle**



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Signes directs et conséquences cliniques



Active motion

Passive motion

In procline

Dorsal flexion of the ankle

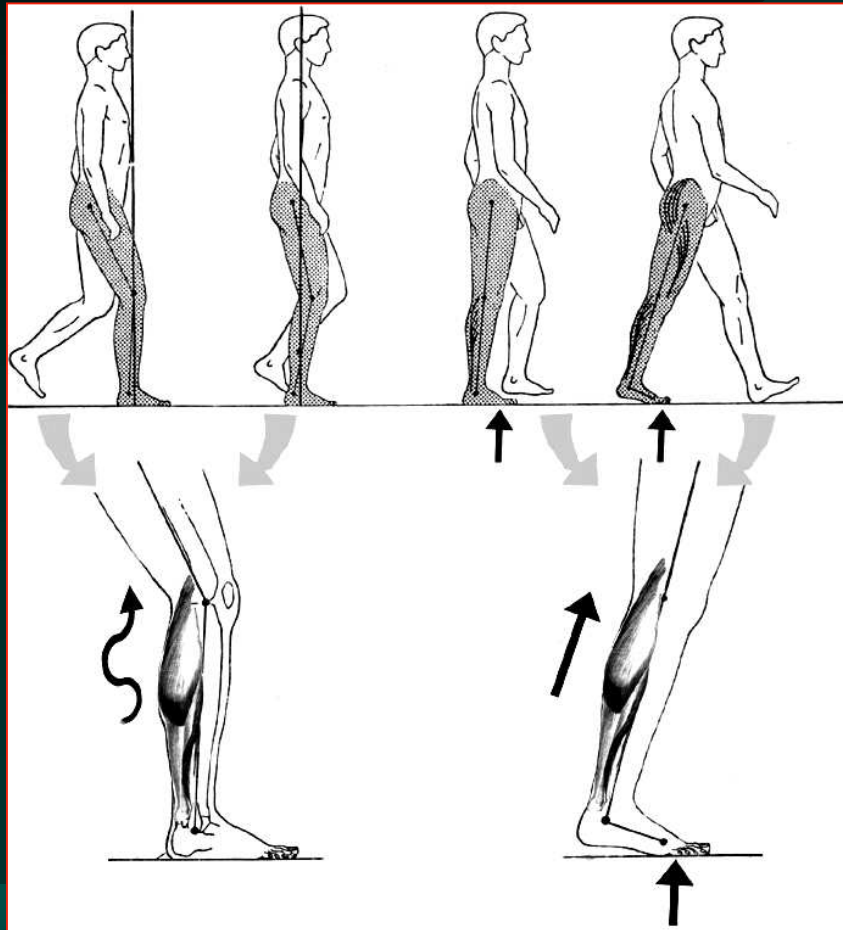
Knee in extension = $> -15^\circ = 76\%$ / from -1° to $-15^\circ = 24\%$
Knee in flexion = $0^\circ = 82\%$ $< 0^\circ = 9\%$ $> 0^\circ 9\%$



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consequences



Saggital plane :

- Suroachilleopantar traction
- Overpressure on the forefoot
- back pain , knee recurvatum

Lateromedial plane :

- hindfoot desaxation
- patellar desaxation



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Signes directs et conséquences cliniques

1- Tension of the gastrosuroachilleoplantar system

Heel pain

Achillis tendinopathy

2,5%

Haglund

1,9%

Plantar aponevrosis

2,8%



apophysitis



Myoaponévrosis



Haglund



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Signes directs et conséquences cliniques

2 – forefoot overpressure

Depend of the shape of the forefoot and the axis of the hindfoot

1rst ray

Central metatarsalgia

5th ray

Hallux
valgus

Hallux
rigidus



Tailors' bunion





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Signes directs et conséquences cliniques

2- forefoot overpressure

a - central metatarsalgia : different aspects



Morton neuroma(5/35)

Dynamic isolated claw toe 5 /185
but often claw toe for local reason



MP2 subluxation (5/35)



2nd claw toe



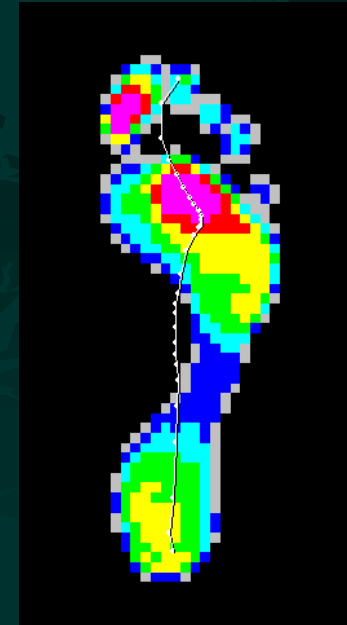
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Signes directs et conséquences cliniques

2- forefoot overpressure

a - central metatarsalgia



Metatarsalgia sine materia 11%



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Signes directs et conséquences cliniques

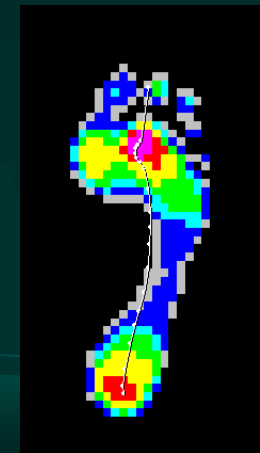
2- forefoot overpressure

1st ray metatarsalgia : hallux valgus

200 HV in this sery (57%)

Congenital	70%
Acquired	30%

In congenital HV :
78% gastrocnemius retraction





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Signes directs et conséquences cliniques

2- forefoot overpressure

1rst ray metatarsalgia : **hallux rigidus** = 2%

IP hyperextension
(FHL weakness)

→ Nail diseases



Claw great toe 0%



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Signes directs et conséquences cliniques

2- forefoot overpressure

CM hypermobility 0%

Lisfranc arthritis 5,3%

→ Increase of torque in the midfoot because of forefoot supination





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Signes directs et conséquences cliniques

3 – back pain

Lumbar pain 17%

→ facet syndrom

Pain in stand up position, increase with spine extension and decrease with foetal position (Kowalski)

cervical , dorsal and sacroiliaque 0%



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Signes directs et conséquences cliniques

4 - Hindfoot desaxation



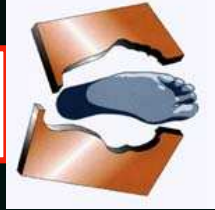
Valgus 12,5 %

Pes cavus valgus (Kowalski):

- Hindfoot valgus
- Medial hindfoot protuberance
- Hollow of the lateral side and lateral break
- Great toe hyperextension



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Signes directs et conséquences cliniques

4 - Hindfoot desaxation



Varus 3,5%

Pes cavus 2,8%

→ But more dynamic varus with ankle instability (pedobarography analysis)



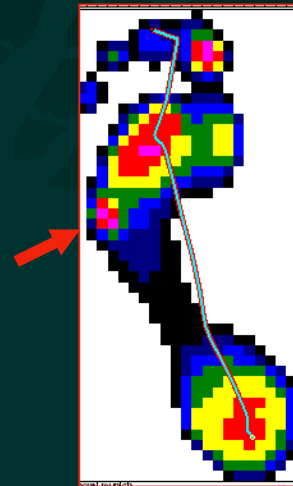
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Signes directs et conséquences cliniques

5 - Ankle instability

General lower limb instability	67%++
Ankle instability	25%
Repetitive sprain	8%





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Signes directs et conséquences cliniques

6 - femoro-patella syndrom



« Foot-knee-spine syndrom »

Never seen in our sery



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Signes directs et conséquences cliniques

conclusion

Think about gastrocnemius retraction if :

- metatarsalgia : sine materia++**
- congenital HV**
- heel pain**
- lower limb instability+++**

Thank you