Hallux Valgus Corrective surgery

Surgeon: Mr KP Meda, Mr H Prem, Mr J McKenzie

Surgical technique:
Medial incision over 1st MTPJ is most frequent.
The 1st metatarsal is divided up into a Z-shape fashion (Scarf) or with a Chevron osteotomy for milder deformities. The 1st MT head is shifted laterally back onto the sesamoids which also corrects the deformity. The bones are then held with screws.

Expected outcome:

- Deformity correction
- Improved function of the Hallux
- Improved pain relief, with decreased analgesic requirements

Physiotherapy: milestone driven to encourage clinical reasoning

Please consult Operative notes for any variations in rehabilitation

Initial rehabilitation phase:
0-6 weeks

Goals:

- To be safely and independently mobile with appropriate walking aid and footwear – i.e. Heel wedge shoe.
- To be independent with home exercise programme as appropriate
- To understand self management / monitoring, e.g. skin sensation, colour, swelling, temperature, etc

Restrictions:

Patients will be full weight bearing in a heel wedge shoe for the first 6 weeks until progressed following an X-Ray in clinic. For Mr McKenzie's patients, a Hallux valgus splint is applied between weeks 2-6.

Treatment:

- **Pain-relief**: Ensure adequate analgesia, ICE as required.
- **Elevation:** ensure elevating leg with foot higher than waist
- **Exercises**: teach circulatory exercises and passive range of movement MTPJ from 2 weeks *(ensure patient understands difference between motion at MTPJ and IPJ)*
- **Education**: teach how to monitor sensation, colour, circulation, temperature, swelling, and advise what to do if concerned
- **Mobility**: ensure patient independent with transfers and mobility, including stairs if necessary. Use heel wedge shoe as required
- **Driving**: patient may drive once out of the heel wedge shoe, if pain adequately controlled and confident to do so.

On discharge from ward:

- Independent and safe mobilising, including stairs if appropriate
- Independent with transfers
- Independent and safe with home exercise programme / monitoring

Milestones to progress to next phase:

- Wearing trainers comfortably (1 oversize if necessary) at 4-6 weeks as per consultant advice
- Managing swelling
- Wound healing well
- Adequate analgesia
- Team to refer to outpatient physiotherapy if MTPJ range severely restricted.

Recovery rehabilitation phase:
6 weeks to 12 weeks

Goals:

- To be returning to normal footwear
- To aim for full range of movement MTPJ
- Optimise normal movement
- Walking comfortably

Restrictions:

No impact exercise; i.e. jogging, aerobics

In some cases, the MTPJ can be loaded in dorsiflexion, in close liaison with the consultant

Treatment:

- **Pain relief**
- **Advice / Education**
- **Posture advice / education**
- **Mobility:** ensure safely and independently as pre-operative level
- **Gait Re-education**
- **Continue to wean** into normal footwear

Exercises:

- Active and passive range of movement Hallux (AROM, PROM)
- Strengthening exercises of the foot and ankle as appropriate
- Exercises to teach patient to find and encourage appropriate foot and ankle positioning in weight bearing
- Balance / proprioception work once appropriate
- Stretches of tight structures as appropriate (e.g. Achilles tendon)
- Review kinetic chain. Address issues as appropriate
- **Swelling Management**

Manual Therapy:

- Soft tissue techniques as appropriate
- Joint mobilisation as appropriate particularly MTPJ and mid foot.
- **Monitor** sensation, swelling, colour, temperature, etc
- **Orthotics** if required via surgical team
- **Hydrotherapy** if appropriate
- **Pacing advice** as appropriate

Milestones to progress to next phase:

- Full range of movement MTPJ
- Mobilising in normal footwear

- Tolerating weight bearing through hallux in standing and in gait
- Improving toe-off

Failure to meet milestones:

Refer back to team / Discuss with team
Continue with outpatient physiotherapy if still progressing

Intermediate rehabilitation phase:
12 weeks to 6 months

Goals:

- Independently mobile unaided
- Optimise normal movement
- Return to normal activities

Treatment

Further progression of the above treatment:

- **Pain relief**
- **Advice / Education**
- **Posture advice / education**
- **Mobility**
- **Gait Re-education**

Exercises:

- Active and passive range of movement toes, foot and ankle as appropriate
- Promoting independence with self-mobilisation of MTPJ
- Balance / proprioception work i.e.; use of wobble boards, trampet, gym ball
- Stretches of tight structures as appropriate (e.g. Achilles Tendon) if decreased toe-off
- Review kinetic chain. Address issues as appropriate.
- Sports specific rehabilitation

Manual Therapy:

- Soft tissue techniques as appropriate
- Joint mobilisations as appropriate
- **Monitor** sensation, swelling, colour, temperature, etc
- **Orthotics** if required via surgical team
- **Hydrotherapy** if appropriate
- **Pacing advice** as appropriate

Milestones for discharge:

- Independently mobile unaided
- Returned to full function

Failure to meet milestones:

- Refer back to team / Discuss with team
- Continue with outpatient physiotherapy if still progressing

Failure to progress

If a patient is failing to progress, then consider the following:

POSSIBLE PROBLEM	ACTION
Swelling	Ensure elevating leg regularly Use ice as appropriate if normal skin sensation and no contraindications Decrease amount of time on feet Pacing Use walking aids Circulatory exercises If decreases overnight, monitor closely If does not decrease overnight, refer back to surgical team or to GP
Pain	Decrease activity Ensure adequate analgesia Elevate regularly Decrease weight bearing and use walking aids as appropriate Pacing Modify exercise programme as appropriate If persists, refer back to surgical team or to GP
Breakdown of Wound e.g. inflammation, bleeding, infection	Refer to surgical team or to GP
Numbness/altered sensation	Review immediate post-operative status if possible Ensure swelling under control If new onset or increasing refer back to surgical team or GP If static, monitor closely, but inform surgical team and refer back if deteriorates or if concerned

Summary of evidence for physiotherapy guidelines

A comprehensive literature search was carried out to identify research relating to rehabilitation for ankle instability and surgery for recurrent ankle instability and subsequent rehabilitation. After reviewing the articles and information, the physiotherapy guidelines were produced on the best available evidence.

A comprehensive literature search was carried out to identify research relating to rehabilitation for scarf osteotomy and subsequent rehabilitation. After reviewing the articles and information, the physiotherapy guidelines were produced on the best available evidence.

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