Plantar fasciitis - management

Discuss first-line treatment options

Provide conservative treatment advice

Consider provision of analgesics

Assess after 6-12 weeks

Symptoms are persisting or worsening

Consider referral to a podiatry specialist

Continue first-line treatment

Symptoms have improved

Continue first-line treatment

Reassess at 3 months

No improvement

Reconsider differential diagnoses

Improvement

Continue treatment

Consider third-line treatment

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Quick info:
All patients with suspected plantar fasciitis should ideally have a diagnostic ultrasound to:
• confirm diagnosis
• exclude a tear
• look for characteristics of an underlying seronegative arthropathy
• possibly demonstrate plantar fascial thickening and hypoechogenicity at the calcaneal insertion suggestive of oedema
If ultrasound is not readily available, and clinical examination supports diagnosis of plantar fasciitis and alternates have been excluded:
• simple conservative treatments may be trialled; but
• if steroid injections or more advanced treatment is needed, patient should be referred for ultrasound scan

2 Discuss first-line treatment options

Quick info:
• advise patients that the prognosis for plantar fasciitis is good
• almost all trials report an improvement in symptoms regardless of the intervention (including placebo) at 1 year; this suggests that the condition may be self limiting

References:

3 Provide conservative treatment advice

Quick info:
Conservative treatment advice for plantar fasciitis includes:
• reassurance that plantar fasciitis usually improves spontaneously
• rest ie limitation of extended physical activities
• periodic application of ice
• physiotherapy – regular stretching of calf muscles
• calf stretches ten times twice a day or more
• raising and lowering on the balls of the feet ten times twice a day or more
• weight loss if appropriate
• over the counter arch supports and heel cushions
• padding and strapping of the foot may provide short-term pain relief
• shoes should have good arch support and cushioned heels
• massage
• night splints may be beneficial and are a simple, no risk approach but there is limited evidence to support their use:
  • night splints maintain an extended length of the plantar fascia during sleep

NB: There is limited evidence to confirm that these treatments are effective.

References:

4 Consider provision of analgesics

Quick info:
- the term plantar fasciitis suggests an inflammatory condition; for this reason non-steroidal anti-inflammatories (NSAIDs) are thought to be the most appropriate analgesics to prescribe:
  - however, some experts suggest that the extent of inflammatory involvement in this condition is a matter for debate
- also consider simple analgesics, eg paracetamol, especially if the potential adverse effects from NSAIDs are a concern

References:

5 Assess after 6-12 weeks

Quick info:
Usually patients have a symptomatic improvement after 6-12 weeks of initial treatment.
Reference:

8 Continue first-line treatment

Quick info:
If symptoms are improving, continue first-line treatment until symptoms are resolved.
Reference:

9 Consider referral to a podiatry specialist

Quick info:
Consider referral to a podiatry specialist and/or physiotherapist if the patient has not responded after 6-12 weeks of treatment:
  - limited evidence that physiotherapy is beneficial beyond stretching exercises

References:

10 Continue first-line treatment

Quick info:
Continue first-line treatment regimen with conservative treatment and analgesics, even if symptoms have not improved after 6-12 weeks, whilst awaiting referral:
  - consider alternate diagnoses

Reference:
12 Consider second-line treatment

Quick info:
Second-line therapy involves the continuation of the initial treatment and the consideration of additional therapy, including:
- made to measure orthotic devices:
  - may be more useful in biomechanically malaligned patients
- corticosteroid injections, with or without local anaesthetic injection:
  - there is insufficient evidence to confirm that corticosteroid injections are effective in the treatment of plantar fasciitis
  - diagnosis of plantar fasciitis should be confirmed by ultrasound before corticosteroid injection as steroids can worsen heel pad syndromes
  - be aware that observational studies have found a high rate of plantar fascia rupture (and other complications) associated with corticosteroid injections, particularly with long-term use; this can lead to chronic disability in some patients
  - injections should only be administered by an experienced clinician under ultrasound guidance
  - the most common mistake made during the administration of corticosteroid injections is to insert the injection directly into the medial tuberosity and not into the junction of the plantar skin
  - fixed ankle walker device to immobilise the foot during activity
  - referral for a weight loss programme in patients with a high body mass index (BMI)
- NB: There is insufficient evidence to confirm that these treatments are effective; with the exception of limited evidence for made to measure orthotic devices.

References:

13 Reassess at 3 months

Quick info:
The majority of patients will demonstrate symptom improvement 2-3 months after commencing second-line treatment (ie 4-6 months after first-line treatment commenced).

Reference:

16 Reconsider differential diagnoses

Quick info:
- there will only be a few patients who have not responded after 6 months of treatment
- reconsider the differential diagnoses for heel pain in these patients
- other causes of plantar heel pain include:
  - neurologic
  - arthritides
  - trauma, eg fracture or stress fracture
  - apophysitis (only occurs in growing children)
  - other musculoskeletal causes including:
    - Achilles tendonitis
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- fat pad atrophy
- sub-calcaneal bursitis
- plantar fascia rupture
- plantar fibromatosis
- bone contusion
- subtalar arthritis
- infection (rare in absence of open wound)
- vascular insufficiencies
- tumour

References:

17 Continue treatment

Quick info:
- in patients who have demonstrated improvement, continue first- and second-line treatment until there is resolution of symptoms
- only repeat corticosteroid injections if initial treatment was clearly beneficial
- wait a minimum of 6 weeks before repeating
- consider alternate diagnosis if more than 2 corticosteroid injections are required

References:

18 Consider third-line treatment

Quick info:
Whilst continuing with first- and second-line therapies, consider the following third-line treatments:
- extracorporal shock wave treatment (ESWT):
  - ESWT involves application of high pressure, low frequency sound waves to the affected tissue
  - some experts feel that the benefit from ESWT is too small to justify the pain that results from ESWT
  - if offering treatment with ESWT:
    - obtain fully informed consent – ensure that the patient understands the uncertainty about the efficacy of ESWT; provide clear written information
    - audit and review all outcomes of ESWT
    - inform the clinical governance leads in the trust

NB: ESWT may not be readily available in some areas.

- surgical plantar fasciotomy:
  - is not recommended, due to poor outcomes, however it has been offered for severe cases when prolonged conservative measures have failed
  - plantar fasciitis can occur in conjunction with a plantar heel spur; surgical removal of the plantar heel spur does not seem to provide symptomatic relief from the plantar fasciitis for the majority of these cases

References:
Evidence summary for Plantar fasciitis - management

The pathway is based on our interpretation of the following guidelines (4, 7). All of these guidelines have been graded for quality and prioritised for inclusion based on their methodological quality. All intervention nodes (i.e. those concerning therapy and therapeutic advice) have been graded for the quality of the evidence underlying them. Supporting resources for key non-interventional nodes have also been listed but have not been graded.

Search date: Sep-2006

Evidence grades:

- Intervention node supported by level 1 guidelines or systematic reviews
- Intervention node supported by level 2 guidelines
- Intervention node based on expert clinical opinion
- Non-intervention node, not graded

Evidence grading:

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Graded node titles that appear on this page
Consider third-line treatment

Evidence grade
1

Reference IDs
3, 4, 6, 7, 9, 10, 11, 13, 14, 15, 12, 16, 17, 18

References
This is a list of all the references that have passed critical appraisal for use in the pathway Plantar fasciitis

ID Reference

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