Summary

Non traumatic Heel pain is a common problem in the adult population it occurs in a wide range and is seen in both sedentary and athletic individuals. **Applied anatomy** of heel region is planter fascia,calcaneus,arches of the foot, medial calcaneal, medial planter and lateral planter nerves, heel fat pad. The plantar fascia in *anatomy* is divided into three slips: medial, central, and lateral. The central portion is the thickest and originates at the medial process of the calcaneal tuberosity. It then divides into five slips. These blend into the distal plantar aspect of the digits. The medial and lateral portions blend with the central portion as the course becomes more distal. In general, the purpose of the plantar fascia is two fold – to provide support of the longitudinal arch and to serve as a dynamic shock absorber for the foot and entire leg. As one walks, the heel makes contact with the ground. Just after this contact, the tibia turns inward and the foot pronates, stretching the plantar fascia and flattening the arch. This allows the foot to accommodate for irregularities in the walking surface. The pain and discomfort associated with this condition can have a dramatic impact on physical mobility. The most common causes of heel pain is planter fasciitis. ***The etiology*** of

planter heel pain is not clearly understood and is probably multi-factorial in nature. Weight gain, occupation-related activity, anatomical variations, overexertion, and inadequate footwear are contributing factors. People with occupations requiring prolonged weight-bearing have long been considered at risk of plantar fasciitis because of the repetitive tensile load placed on the fascia. Heel spurs have commonly been implicated as a risk factor for heel pain . posterior heel pain,retrocalcaneal bursitis and tendonitis of tendo Achilles at it,s inserstion of the calcaneus. Neuropathic heel pain as tarsal tunnel syndrome(tingling,burning pain, numbness) and atrophy of heel fat pad may cause heel pain.

Classic ***symptom*** of planter fasciitis is pain when first taking a step out of bed in the morning or after an extended refrain from weight-bearing activity. After a few steps and through the course of the day, the heel pain diminishes. Usually, pain is present in the plantar-medial aspect of the calcaneus and may be bilateral or unilateral. Posterior heel bursitis is pain associated with rednss,hotness and tenderness over inflamed bursa. Neurogenic heel pain associated with tingling, numbness and burning sensation.

Physical examination presents with localized tenderness at the anteromedial aspect of the calcaneus. Pain may be exacerbated by passive dorsiflexion of the toes or having the patient stand on the tips of the toes.

Diagnostic imaging it may be helpful in certain cases of heel pain. Plain radiographs can rule out calcaneal stress fracture, calcaneal spur and may detect an underlying spondyloarthropathy. Bone scans and magnetic resonance imaging (MRI) may also serve useful, but are not routinely used. Ultrasonography is another useful tool to diagnose heel pain .

Although plantar fasciitis is generally regarded as a self-limited condition, it can take months to years to resolve. Many ***treatment options*** are available that demonstrate variable levels of efficacy. Conservative therapies include rest and avoidance of potentially aggravating activities, stretching and strengthening exercises, orthoses, arch supports, and night splinting. Other considerations include use of anti-inflammatory agents, corticosteroid injections and a new treatment being investigated is extracorporeal shock-wave therapy (ESWT).

Perhaps the most important nonoperative treatment is reassuring the patient that the condition likely will settle. All other nonoperative treatments are temporary measures that are used while the condition

follows its natural history. Although the vast majority of those who have this condition will recover in time,

Surgery for plantar fasciitis should be considered only after all other forms of treatment have failed. The most common procedure is a partial plantar fasciotomy that may be either open or closed with or without drilling of the base of calcaneal spur. An open procedure requires a 3-6 cm plantar medial incision to release the fascia, complete release of the fascia results in decrease in the height of the medial longitudinal arch and may led to lateral column syndrome. Partial fasciotomy does cause changes in arch height, but this does not seem to be clinically significant. A closed procedure utilizes endoscopy to release the fascia. Potential complications include transient swelling of the heel pad, flattening of the longitudinal arch, damage to the posterior tibial nerve, heel hypoesthesia, and rupture of the plantar fasci ,medial calcaneal nerveor Baxter nerve neurolysis or neuroectomy.