

Understanding the Underlying Etiology of Foot Pain

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Abstract

Foot and ankle (foot/ankle) pain is common in the community. The prevalence of foot pain has been estimated at 13-36%, and the prevalence of ankle pain is approximately 12%. Compared to other body sites, the foot/ankle is his third most common site of self-reported joint pain in adults over the age of 55. The presence of foot/ankle pain is a risk factor for functional impairments such as impaired mobility, impaired balance and increased risk of falls. In addition to functional impairment, the presence of foot/ankle pain is a risk factor for poor health-related quality of life.

Keywords: Foot pain; Metatarsal head;

Introduction

Factors Associated with the Presence of Foot/Ankle Pain Should be considered through a biopsychosocial model that Explains Foot/Ankle Pain as a Result of Interactions between Biological, Psychological, and Social Factors [1]. This model shifts focus away from the pathophysiological processes associated with nociception and enhances subsequent behavioral effects on a person's emotional state, cognitive processes, and pain [2-5]. Interestingly, there is no evidence of musculoskeletal disorders for a direct association between histopathology and/or radiographic findings and a person's perception of pain, including pain intensity [6].

Emotional factors such as depression, anxiety, and common signs of emotional distress are more important than painless controls in various conditions (e.g., mixed, back, head, neck, fibromyalgia, arthritis), is more common in people with persistent pain [7,8]. We also know that cognitive factors related to how individuals think about their pain are associated with pain experiences. For example, pain catastrophic is associated with increased pain intensity, pain-related disability, and psychological distress, even when the level of physical impairment is controlled. Pain perception may also be associated with coping behaviors that produce positive outcomes and maladaptive behaviors such as: B. Avoidance behaviors that may be associated with other impairments, depression, and pain [9,10]. Few studies have examined the prevalence of foot pain in large, randomly selected samples. Instead, attention is usually focused on specific medical conditions (such as heel pain) or population groups (such as those over 65). Garo et al. [11] Among those reporting disabling foot pain symptoms, the most frequently reported foot pain sites were the metatarsal/arch area (25.6%), the first metatarsal head (20.2%), big toe (15.9%), and plantar surface of the heel (15.5%). Further research is needed to characterize the exact types of foot pain in the general population. Foot tissue injury may be caused by direct trauma, musculoskeletal overload, infection, or systemic or proximal pathologies (e.g., It can be caused by chemical, mechanical, or thermal stimuli associated with nerve entrapment (diabetic neuropathy). Many common types of foot pain, such as tendonitis, stress fractures, corns, and calluses, are routinely attributed in whole or in part to mechanical stress force) is a normal part of foot function, but tissue damage occurs when the maximum tissue load threshold is exceeded. This can occur when: (1) high stress in a short time; (2) long term, low stress; or (3) moderate repetitive stress. By identifying factors that predict foot pain, physicians can modify or prevent the factors and even target risk groups with preventive strategies and more appropriate treatments. Increased female sex is associated with leg pain [10]. However, the prevalence of disabling foot

pain has been shown to increase with age in both men and women, peaking between the ages of 55 and 64 (15% in women and 12% in men). , reported to decrease with increasing age. Decreases steadily. In contrast, studies specifically focused on leg pain in older adults suggest another, with a prevalence of up to 42%.

Foot pain usually appears to be associated with other areas of pain, such as hip/leg pain, axial skeletal pain, and/or shoulder pain. It is more likely to occur in patients previously diagnosed with arthritis, diabetes, and/or stroke. In the largest study to date, Garrow et al [11] reported that rheumatoid arthritis patients were three times more likely to disable leg pain than he did, but the number of people included in this part of the analysis was so small that statistical did not reach [11]. He also found that people in the North West of England with foot pain disabling between the ages of 18 and his 80s were more likely to self-diagnose nail problems than those without foot pain disabling. also reported a significantly higher (42% vs. 22%), corns and calluses (41% vs 30%), hallux valgus (19.5% vs 7%), swollen feet (34% vs 10%), flat/flat feet (9% vs 6%), high arches/cavities legs (18% vs. 13%) and toe deformity (33% vs 13%) ($p < 0.05$). Menz et al [12] also reported an association between foot pain and flatfoot disabling and limited ankle range of motion in older Australians. In a study by Garrow et al [11] However, foot problems diagnosed by podiatrists using established criteria showed only foot swelling as correlating with disabling foot pain (43.7% vs. 18.0%). OR: 3.8; 95% CI: 1, 7 to 8.2). This unexpected result has been reported by Badlissi et al [13] reported that the frequency of people over the age of 65 with foot pain suffering from hallux valgus, flatfoot, or pinky malformations (including hammer, mallet, nail, or toe-bunionette overlap) was higher than that of the foot reported less than those without pain. However, Badlissi [13] established a relationship between foot pain and concave foot. Discrepancies between these studies may be due to differences in specimen characteristics and diagnostic/classification criteria. External factors commonly associated with foot pain include inappropriate footwear and occupational activities, although these areas have received little empirical research

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in the past. Further research is needed to develop predictive models for developing foot pain in large random samples of children, adolescents and adults for both intrinsic and extrinsic factors.

Discussion

In recent years, several comprehensive reviews have discussed age-related changes in pain perception [14]. Although there is some contradiction between the empirical evidence, most studies have found that the pain threshold (the lowest level of stimulation required for a person to feel pain) by thermal or mechanical stimulation, rather than electrical stimulation shows an age-related increase. Decreased sensitivity to heat pain is most pronounced after age 70 and may be more pronounced in the extremities of the extremities. Pressure pain threshold increases by approximately 15%, more pronounced in women than in men. Thermal pain threshold increases by approximately 20% for radiation pain and 50% to 100% for CO₂ laser pain [15].

There appears to be a modest age-related increase in pain threshold and decreased sensitivity to low-level noxious stimuli, but an increased response to higher-intensity stimuli and decreased tolerance to severe pain. Recent experimental studies suggest that this is due to alterations in peripheral α -delta and C-fiber nociception, as well as changes in the central nervous system, including decreased plasticity of the central nervous system and decreased efficacy of endogenous analgesic mechanisms after injury suggesting that it is possible.

Conclusion

In this review we have seen the factors, various kind of situations in which pain can be observed in people in varying age groups. We hope that this review can clarify the cause of pain associated with ankle and problems relate to it.

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