

论文

应用步态分析评价足趾缺损对足功能的影响

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摘要:

目的 用步态分析的方法研究不同类型的足趾损伤对足功能的影响。方法 随访术后2~8年拇趾远节部分缺损、拇趾远节缺损、二趾缺损和二趾列缺损四组患者40例, 采用自身健足对照, 用Footscan足底压力分析系统进行足底生物力学分析。结果 拇趾远节部分缺损主要引起局部应力的改变, 拇趾远节缺损引起重心后移及前足蹬离期的缩短, 二趾缺损可引起足底应力的外移, 跖骨头缺损引起整个前足压力显著升高。结论 各类足趾缺损均会对足底步态产生不同影响, 拇趾远节及第二跖骨头缺损对足底应力分布影响较大, 应尽力予以保留。

关键词: 足趾; 缺损; 步态分析

Functional assessment of the foot with toe amputation by gait analysis

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Abstract:

Objective To study the function of the foot with different types of toe injuries by the method of gait analysis. Methods Forty post-operative patients were followed-up for 2 to 8 years. They were divided into four groups: the partial distal hallux amputation group, the whole distal hallux amputation group, the second toe amputation group and the second caput ossis metatarsalis amputation group. Plantar vito-dynamics were analyzed by the Footscan system and the normal foot of each patient was taken as the control. Results Local pressure changes were observed in the partial distal hallux amputation group, the gravity center shifted back and the forefoot push-off-phase was shortened in the whole distal hallux amputation group, the plantar pressure shifted laterally in the second toe amputation group and the propodium's pressure increased in the second caput ossis metatarsalis amputation group. Conclusion Any kind of toe amputation may cause different influences to foot kinematics. Amputation of the distal hallux and second caput ossis metatarsalis may have significant impact on plantar vito-dynamics. It is worth trying to preserve the distal hallux and caput ossis metatarsalis as much as possible.

Keywords: Toe; Amputation; Gait analysis

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