

Original Article

Cadaveric Study of Locked Thumb Metacarpophalangeal Joint Caused by Entrapment of Radial Sesamoid Bone

拇指橈端種籽骨陷入拇指掌骨頭髁間凹口的解剖依據

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Abstract

Purpose: To identify the anatomical basis of entrapment of radial sesamoid bone of thumb into intercondylar notch of first metacarpal head and to reproduce radiographic “overlapping sign” on sesamoid subluxation.

Methods: Ten human cadaveric hands were dissected to measure the anthropometric parameters of radial sesamoid bone and intercondylar notch of first metacarpal head. Radiographs were taken to identify and to reproduce “overlapping sign” on sesamoid subluxation into intercondylar notch.

Results: Intercondylar notch of first metacarpal head was consistently larger than radial sesamoid bone, which allowed the entrapment. Radiographic “overlapping sign” was reproducible when such subluxation occurred.

Conclusion: This anatomical study identifies sesamoid subluxation into intercondylar notch as the cause of first metacarpophalangeal joint rotary subluxation. Radiographic “overlapping sign” is diagnostic of this clinical entity and is an important consideration for open reduction.

中文摘要

目的: 確認拇指橈端種籽骨陷入拇指掌骨頭髁間凹口的解剖依據和重塑X射線照片中在種籽骨半脫位的重疊徵兆。

方法: 解剖並量度10隻人類屍手的橈端種籽骨和第一個掌骨頭髁間凹口的參數。使用X射線照相確認和重塑在種籽骨半脫位進入掌骨頭髁間凹口的“重疊徵兆”。

結果: 拇指掌骨頭髁間凹口一致地大於橈端種籽骨，能讓種籽骨陷入其中。當這樣半脫位發生時，X射線照相中“重疊的徵兆”是可重塑的。

總結: 這項解剖研究確認橈端種籽骨半脫位陷入拇指掌骨頭髁間凹口，可成為拇指指掌關節旋轉式半脫位的起因。X射線照相中的重疊徵兆是重要的臨床確診手段及

考慮手術復位的關鍵。

Keywords: sesamoid, subluxation