INTRAOPERATIVE VALUE OF THE THOMPSON TEST

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Disclosure

Intraoperative Value of the Thompson Test

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Thompson Test

- Classic clinical test to diagnose Achilles tendon rupture\textsuperscript{1,2}
  - Calf squeezed just distal to area of maximal girth
    - If Achilles is ruptured, foot will not plantarflex

- Deep plantarflexors remain intact in Achilles tendon rupture
  - Allows for some degree of active plantarflexion strength\textsuperscript{3,4}
Purpose

• To assess validity of Thompson test and determine if deep flexors of the foot can create a false negative Thompson test
Materials & Methods

• 10 unmatched fresh-frozen above-knee lower extremity cadaveric specimens

• Thompson test performed prior to dissection in all specimens

• Sequential release of Achilles and deep plantarflexors
  – Thompson test performed following each tendon release
Materials & Methods

• Group 1 (Specimens 1-5)
  – Tendon release sequence
    1) Achilles in 25% increments
    2) FHL
    3) FDL
    4) PTT
Materials & Methods

• **Group 2 (Specimens 6-10)**
  - Tendon release sequence:
    1) PTT
    2) FDL
    3) FHL
    4) Achilles in 25 percent increments
Results

• 9 out of 10 with intact Thompson test prior to dissection
  – Specimen 3 excluded

Group 1:
  Thompson test intact in all 4 specimens after sectioning of 25, 50, and 75 percent of Achilles. After complete (100 percent) sectioning of Achilles, Thompson test absent in all specimens

Group 2:
  Thompson test intact in all specimens after:
  – Sectioning deep flexors
  – Sectioning of 25, 50, and 75 percent of Achilles

After complete sectioning of Achilles, Thompson test absent in all specimens
Conclusions

• Thompson test is accurate test for diagnosing *complete* Achilles tendon ruptures
  – Not useful for diagnosing partial Achilles tendon ruptures

• Intact deep flexors do not play a role in outcome of Thompson test

• Thompson test use to verify intact Achilles in the intraoperative setting may be unreliable
References