DIRECT IMPACT SUBTALAR ARTHROEREISIS

Biomechanics:
- Closed chain pronation kinetics: Calcaneus everts, talus plantar flexes and addicts, tibia internally rotates and knee flexes.
- Prevents frontal plane deformity by preventing supinatory motion of the talus against the calcaneus. Thus preventing valgus angulation of the calcaneus and STJ.
- Peg/Implant applies counter force to lateral process of talus to prevent pronatory motion of the rearfoot.
- Also corrects transverse plane motion of the forefoot by maintaining locked midtarsal joint by preventing STJ pronatory motion completely.

Indications:
- When conservative treatment fails to correct pain and motion from flexible pes valgus deformity in both children and adults.
- Alternative to arthrodesis in adults with Stage 2 PTTD
- Transverse plane aspect to deformity

Contraindications
- Rigid Pes Valgus
- Congenital Vertical Talus
- Tarsal Coalition
- Neuromuscular abnormalities both spastic and flaccid
- Inability to lock midtarsal joint
- Rigid forefoot valgus/met adductus

Hardware Utilized
- Sgarlato Device
- Angulated STA-peg
- Angled insertion of a regular STA-peg implant (Flake Modification)

Post-Op Course:
- 3-4 Weeks protective weight bearing
- 4th week transition to regular shoe with custom orthotic device
- Full activity between 2-6 months (includes sports)

Research:
  - Significant results with correcting flexible valgus deformity in children radiologically in both frontal and transverse planes. Three pt’s with complications one not involving procedure.
- Not much in terms of literature. Complications appear to be benign but are not studied well. Only studies are this one and an unpublished article (Dickerson, et. al. Long Term Follow up of the Flake-Austin Arthroereisis (Modified Peg and Stem) submitted for publication JFAS).

References