

We thank Graham et al for their articles (1,2) and look forward to them clarifying these issues and questions on this important topic. We appreciate their work and activities surrounding arthroereisis/talotarsal dislocation.

Daniel J. Hatch, DPM, FACFAS
Foot and Ankle Center of Northern Colorado
Greeley, CO
Consultant, Solana Surgical
Memphis, TN
Consultant, OsteoMed, Addison, TX

Reply:

Following are my responses to the questions and comments from Drs. Hatch and Tower regarding the 2 articles (1,2).

Article 1 (1)

1. The primary point was that only 6% of the cases resulted in a permanent removal and 9 cases required a revision. If you want to add the numbers together to show how many patients required additional surgery that is fine; however, the ultimate failure rate would not be 14% as the additional cases were successful after the revision.
2. The pivot point is the same as the axis point of the subtalar joint. This was shown in my article published in 2011 (3).
3. I assume that you are inferring that HyProCure® is the object that is placed on both sides of the pivot point, 180° to each other. The medial threaded portion of the HyProCure® has no effect to the talotarsal joint motion. The true stabilizer is the central conical smooth section. The “head” of the HyProCure® device serves only as an additional area for tissue on-growth to prevent device displacement. HyProCure®, if sized correctly and positioned accurately, will not block all motion.

Article 2 (2)

1. The reference to Farabeuf was taken from EFS Chamber’s article (4).
2. If you cut skin, it heals. If you cut tendon, it heals. If you cut bone, it heals. If you cut a ligament, it heals. I have no scientific peer reviewed published studies on the healing rate of the interosseous ligament. When I have had to go back into the sinus tarsi for implant removal or revision the ligament had reanastomosed. The cutting of the interosseous ligament, for many, is simply preposterous and one of the biggest “sins” of sinus tarsi implant surgery, yet to cut the medial band of the plantar fascia is quite acceptable and to completely remove the contents of the sinus tarsi for a patient with chronic sinus tarsitis is also very acceptable. The interosseous ligament is one of many talotarsal ligaments whose function is to prevent the displacement of the talus on the calcaneus. The interosseous ligament is not “doing its job”

Dyane Tower, DPM, MS
American Podiatric Medical Association/TDI Public Health Fellow
Bethesda, MD

References

1. Graham ME, Jawrani NT, Chikka A. Extraosseous talotarsal stabilization using HyProCure® in adults: a 5-year retrospective follow-up. *J Foot Ankle Surg* 51(1):23–29, 2012.
2. Graham ME, Jawrani NT. Extraosseous talotarsal stabilization devices: a new classification system. *J Foot Ankle Surg* 51(5):613–619, 2012.

in patients with talotarsal displacement. The sinus tarsi implant replaces the function of the interosseous ligament.

3. The threaded portion of the HyProCure® device does not limit any motion of the talus on the calcaneus. The real stabilizer is the smooth conical portion. It is specifically this middle section of the HyProCure® that prevents the anterior displacement of the talus. The threaded portion only serves as an anchor to allow tissue on-growth to resist device displacement.
4. Wilhelm Henke and Friedrich Gustav Jakob Henle were anatomists in the 1800s who published many works on anatomy including talotarsal motion. They have been referenced by the forefathers of foot and ankle surgery.

Please see the Additional Sources at the end of this letter.

Michael E. Graham, DPM, FACFAS
Director, Graham International Implant Institute
Macomb, MI

References

1. Graham ME, Jawrani NT, Chikka A. Extraosseous talotarsal stabilization using HyProCure® in adults: a 5-year retrospective follow-up. *J Foot Ankle Surg* 51(1):23–29, 2012.
2. Graham ME, Jawrani NT. Extraosseous talotarsal stabilization devices: a new classification system. *J Foot Ankle Surg* 51:613–619, 2012.
3. Graham ME, Parikh R, Goel V, Mhatre D, Matyas A. Stabilization of joint forces of the subtalar complex via HyProCure sinus tarsi stent. *J Am Podiatr Med Assoc* 101(5):390–399, 2011.
4. Chambers EFS. An operation for the correction of flexible flatfeet of adolescents. *West J Surg Obstet Gynecol* 54:77–86, 1946.

Additional Sources

- Bergmann E, Bruns P, Mikuliez J. *A System of Practical Surgery*, Vol III, New York, Lea Brothers p. 751–768, 1904.
- Cunningham DJ. *Manual of Practical Anatomy*, 2nd ed, Vol 1, p. 324, Pentland, London, 1896.
- Henke FGJ. *Handbuch der Anatomie und Mechanik der Gelenke mit Rücksicht auf Luxationen und Contracturen*. D.F.Winter, X, Leipzig u. Heidelberg, Germany, 1863.
- Henke. W Die Contracturen der Fusswurzel. *Zeitschrift für ration Med*, 3rd ed, Vol II, p. 177, Leipzig und Heidelberg, Reihe, 1859.
- Henle FGJ. *Handbuch der systemischen Anatomie des Menschen*, III, Braunschweig, 1871.
- Lorenz. *Die Lehre vom erworbenen Plattfusse*, Stuttgart, Verlag Von Ferdinand Enke, 1883.
- Lovett RW, Cotton FJ. Some practical points in the anatomy of the foot. *J Bone Joint Surg* 298–315, 1898.