My Development Story: The Panta Nail
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I did not start out with, nor have I ended up with, particularly keen entrepreneurial inclinations. The Panta nail was the result of a quest to solve a specific surgical problem, for which I had no good solution. It began with a study which we presented at the AOFAS summer meeting in 2001. It was a series of combined ankle and subtalar fusions, using retrograde nails, which showed not only a high complication rate consistent with prior reports, but more importantly, a nonunion rate of almost 25%, at one level or the other. There was difficulty in achieving reliable fusion on both sides of the talus. The second problem was the weak distal fixation in the calcaneus.

Thinking about the principles of arthrodesis, was a reminder that the literature has shown, (specifically the articles from the late 1940’s and early 1950’s of Sir John Charnley) the benefit of compression in achieving arthrodesis. So it seemed logical to design a nail that produced better compression at both fusion sites, and with better distal fixation.

I originally chose to work with a small company, New Deal, based in France, which at the time was the only comparable company that was solely devoted to foot and ankle products. I worked primarily with their engineer, Bertrand Ganeau, and together we jointly put the ideas into effect.

So it was concept-driven. The plan was to create a nail and insertion jig in which both problems were addressed. The problem of inadequate distal fixation in the calcaneus was addressed by putting the distal interlocking screws posterior to anterior through the length of the calcaneus, even holding through the medial cortex of the distal calcaneus. The problem of the high non-union rate was addressed by designing a system in which bony fixation in the tibia, together with the bony fixation in the calcaneus, allowed direct bone to bone compression. The compression device is so powerful, that we balanced it with a double-armed jig. The compression mechanism effectively made a “sandwich” out of the talus.

I relate all this, because this was how the development process went: A lot of brainstorming, many prototypes, and a lot of cadaver labs. Sort of old-fashioned, definitely not glitzy; just clinically oriented. Ultimately, New Deal was purchased by Integra, an American company. My education about the business side of all this came on the back end. If there were a next time, I would know how to pay better attention to those issues on the front end. I believe the other speakers are addressing that process better than I.

The issues that I learned about and will talk about include: 1. Moving from an idea to a product; 2. Obtaining patents, both American and international; 3. Issues of negotiation and marketing; 4. The process of refining the product, even after its release to market.

For me, this is a story of creating a surgical solution. I started on this over 10 years ago. I am putting the royalties, which I began to receive only last year, into a community charitable fund to support research, education and other local charities.