Abstract

Hallux valgus surgery is a frequent surgical procedure, and more than 100 techniques have been described. As the pathophysiology of the disease is not understood, multiple treatments are available, and no Level 1 evidence is available to prove which is the best option for a selected patient. Broadly hallux valgus deformity has been divided in mild, moderate and severe, depending on the degree of deformity, which doesn’t correlate with symptoms, but it correlates with the surgical techniques offered to address the deformity. For mild deformities, most foot and ankle surgeons would prefer distal osteotomies as the techniques of choice, but for severe hallux valgus deformities, a plethora of options exist and no consensus is available. If two or three different surgical techniques achieve the same result, an additional factor which could help us in the decision making process is the cost effectiveness of that particular technique. No such analysis is available yet.

In this talk, we will perform a cost effectiveness analysis of different surgical techniques in hallux valgus surgery, from a patient’s perspective. To achieve this, we used national published and unpublished results of different techniques, using local available hardware, including 240 patients operated in three hospitals in Santiago de Chile, between 2009 and 2012. Hallux valgus severity was divided in mild deformities, and moderate to severe. Three different techniques were compared for mild deformities, i.e. Chevron, Modified Scarf and Ludloff osteotomies. For severe hallux valgus deformities, two different techniques with three different hardware configurations were compared, i.e. POSCOW proximal osteotomy, Modified Lapidus arthrodesis fixed with screws and Modified Lapidus fixed with screws and plates. The surgical techniques used were performed by trained foot and ankle surgeons as described in the literature, using the same implant within each type of technique.

For cost evaluation, we will consider all the associated surgical and nonsurgical costs, including implants, hospital charges, medication use and laboral leave period. The effectiveness was measured with the one most common scoring system reported which was the AOFAS score. This score assigns 40 points to pain, 45 points to function and 15 points for alignment. We present the comparison between techniques within each deformity group, using a cost effectiveness ratio.