Ankle fractures are very common and orthopedic surgeons see many in their practices. The fractures are classified into one of two categories, according to how they are broken; one is called the supination-external rotation (SER-2) plus a deltoid ligament rupture or medial malleolar fracture, the two together are called a bimalleolar fracture (SER-4). Both types of SER-4 fractures respond better to surgery than to casting alone. For this study, the researchers wanted to compare the outcomes of the surgery for these two types of fractures.

Four hundred fifty six patients were followed for this study. All underwent similar surgeries and followed similar post-surgery rehabilitation. The researchers followed up with the patients at months 3, 6, and 12 after surgery with physical examinations, x-rays, and discussions about complications.

Results showed that 61 percent of the patients had a bimalleolar fracture, the remainder, a lateral malleolar fracture. The group was fairly even between men (53 percent) and women. the average age was 42.5 percent, with a range between 18 and 89 years. Bimalleolar fractures were more common in the over 60-years group (24 percent) compared with 6 percent under 60, and they were more common in women. The average age of patients with the fractures was 47.3 years. With the other fracture, the average age was 38.7 years. Thirteen percent of all the patients had diabetes.

The results showed that there were 26 complications (26 patients) in the group, with 21 of the patients asking to have the hardware removed because it was causing symptoms. The authors did not find any connection between patients with diabetes and the surgical outcome, but they point out that an earlier study did find a higher rate of complications, as well as hospital length stay among diabetic patients.

The authors conclude that the bimalleolar ankle fracture occurs more often in older people and functional outcome in this group is not as good with the lateral malleolar fracture.