ABSTRACT

Background and Purpose: The patella plays an important role in knee biomechanics and provides anterior coverage of the knee joint. One to two percent of the population has an anatomical variant of patella called a bipartite patella that usually does not cause pain. However, occasionally after injury or overuse during sport it can be a source of anterior knee pain. The purpose of this case report was to present a rare variant of bipartite patella and highlight conservative treatment of this condition.

Study Design: Case Report

Case Description: A 35-year-old female patient presented with persistent bilateral non-traumatic anterior knee pain of a six-year duration that was enhanced by strenuous kinds of sport activity. Standard radiographs and MRI revealed the presence of bipartite patella with medial pole cartilage edema bilaterally. Conservative care including physical therapy, extracorporeal shock wave therapy (ESWT), and viscosupplementation was utilized.

Outcome: After treatment VAS decreased to 0/10 from 5/10 in the left knee and 1/10 from 5/10 in the right knee. The Kujala Scores improved after treatment to 100 and 95 for the left and right knees respectively. The subject returned to full sport activity and work as a fitness instructor without pain and limitations.

Discussion: This case describes a rare finding of bilateral medial bipartite patella and the successful use of physical therapy with viscosupplementation in patellar pain caused by bipartite patella. It also supports the use of Extra Corporeal Shock Wave Therapy in bipartite patella pain as a supplement for therapy.

Level of Evidence: 4

Keywords: Anterior knee pain, bipartite patella, Magnetic resonance imaging