The early diagnosis and treatment of developmental patella infera syndrome

Abstract: Developmental patella infera and associated arthrofibrosis after knee surgery require prompt recognition and treatment. The condition develops because of contracture of peripatellar tissues, fatpad tissues, and quadriceps weakness, and may rapidly progress to permanent patella infera and disabling patellofemoral arthrosis. Case studies for five patients with acute developmental patella infera are described. All patients required an early arthroscopic release of contracted tissues. To establish normal right to left patellar, vertical-height ratios, lateral roentgenograms were obtained in 202 normal knees (101 pairs). The data showed that although essentially no difference existed between right and left sides, large variations existed in the ratios from one individual to another (range, 0.75-1.46). Thus, the diagnosis of developmental patella infera requires comparison of patellar height ratios in the same knee or between knees in the same individual. A decrease in the vertical-height ratio of 11%-15%, depending on the method used, indicates developmental patella infera.