Comparison the of Radiographic and Clinical Results Between Conservative and Conventional Femoral Components in Total Hip Arthroplasty

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Abstract: The aim of this study was to compare the radiographic and clinical results after Mayo—stem and conventional femoral component replacements. Seventy—nine total hip arthroplasties were performed in young patients, utilizing conservative hip prostheses developed at the Mayo clinic. We compared the anteroposterior radiographs of 74 control hips who underwent conventional femoral replacement, with 79 hips who had Mayo—stem replacement. We measured the femoral offset, %FO, and valgus angle of the component. In comparison to the conventional femoral component, the Mayo—stem had decrease in femoral offset, %FO and an increase in the valgus angle after implantation. In conclusion, the Mayo—stem is considered to be a suitable femoral component for young patients because the proximal femoral bone can be conserved and the incidence of thigh pain is low, but a weakening of the abductor muscle may ensue after the implantation of this type of femoral prosthesis. It is therefore necessary to pay attention to the stem position during implantation.

Key words: Total Hip Arthroplasty, Conservative Hip Replacement, Femoral Offset, Radiographic and Clinical Results