

Minimally Invasive Total Hip Arthroplasty:

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A lot of interests were recently generated on performing minimally invasive total hip arthroplasty. The MIS hip surgery is generally divided into two categories comprising one-incision MIS and Two-incision MIS. Both methods theoretically have advantages and disadvantages.

In my personal experience of MIS-THA, one-incision MIS-THA was performed through the posterolateral approach with the patient on the lateral decubitus position. The skin incision was made from 1-2cm above the greater trochanter to distally ranging from 5.5cm to 9cm of total length. Two-incision MIS-THA was performed with the patient on the lateral decubitus position. One incision was made over the femoral neck ranging from 6 to 8cm. Another incision was made along the fiber of gluteus maximus ranging from 4 to 6cm.

The possible diseases for minimally invasive THA were avascular necrosis of the femoral head, degenerative osteoarthritis, fracture complications and rheumatoid arthritis and ankylosing spondylitis. Septic hip sequelae was excluded. The mean skin incision was 7.5cm ranging from 5.5-9 cm for one-incision MIS-THA and 12cm ranging from 10-14cm for two-incision MIS-THA. The mean operative time was 52 minutes in one-incision MIS-THA and 73 minutes in two-incision MIS-THA. The rehabilitation was faster in two-incision MIS-THA group and the length of hospital stay was shortened. The period of using crutches were shortened in the two-incision group. The satisfaction of the patient was much higher in two-incision MIS-THA group. The rate of operative complications was a little bit higher during the learning curve, but later on became equal.

Total hip arthroplasty can be performed safely either with one-incision or two-incision MIS. The running time for the surgery and the total length of the skin incision was longer in two-incision MIS-THA, but the rehabilitation after surgery was much faster in two-incision MIS-THA. The two-incision MIS-THA has now become the routine procedure in our institute when primary total hip arthroplasty is performed.