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A modified lateral approach to the hip provides good exposure to the hip joint. It is safe, simple, direct and remote from the contaminated perineal area.

Many different surgical approaches to the hip joint have been described in medical literature.[1-29] Generally speaking, they all fall under anterior, lateral or posterior approach. The nature of the surgical procedure and the surgeon's preference usually dictate the approach used.

Ideally, an approach to any joint should include the following important points:

1. Good visualization of the joint.
2. Avoidance of major neurovascular structures to minimize bleeding and other intraoperative complications.
3. Minimal disturbance of anatomical integrity of bone and soft tissues, in order to shorten post-operative recovery period.
4. Avoidance of a potentially contaminated area such as the perineum, to minimize chances of infection.
5. A simple and direct approach to the joint to economize time requirement and to facilitate its general usage.

We believe our modified lateral approach to the hip joint fulfills these criteria.

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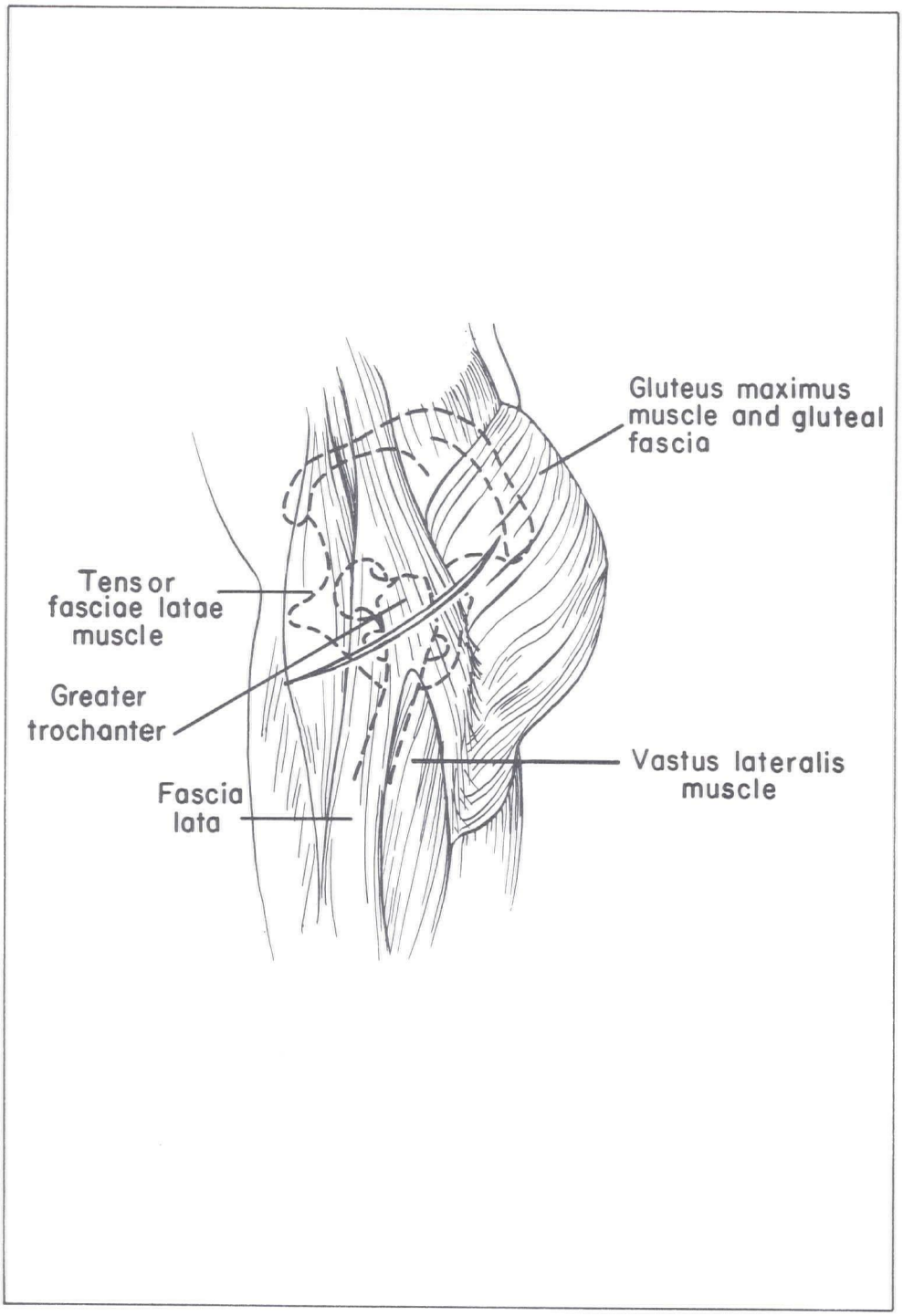
Gluteus maximus muscle and gluteal fascia
Tensor fasciae latae muscle
Greater trochanter
Vastus lateralis muscle
Fascia lata

Figure 1

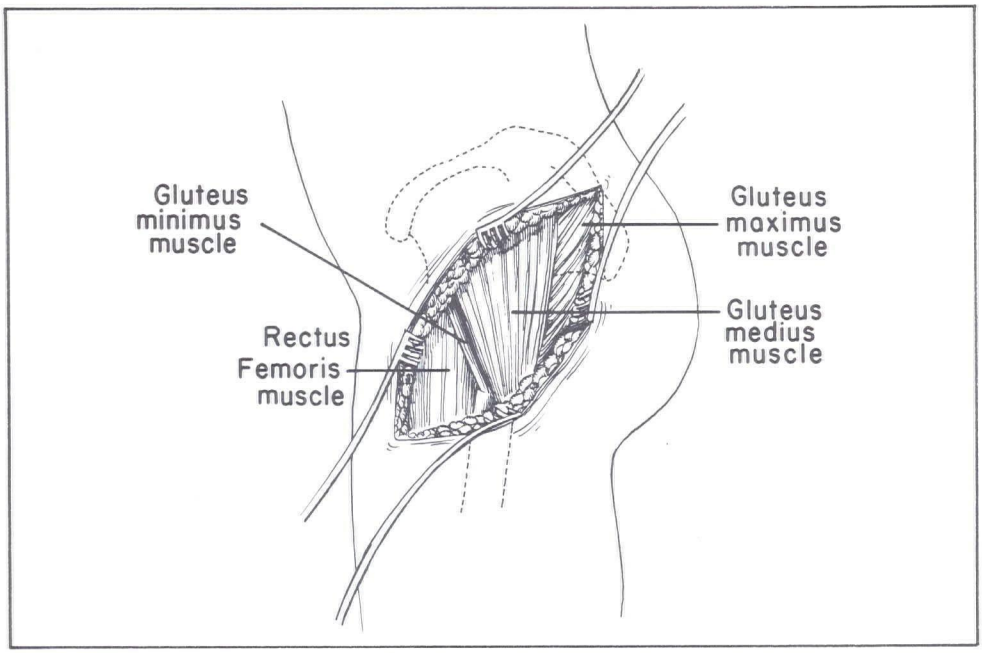

Figure 2

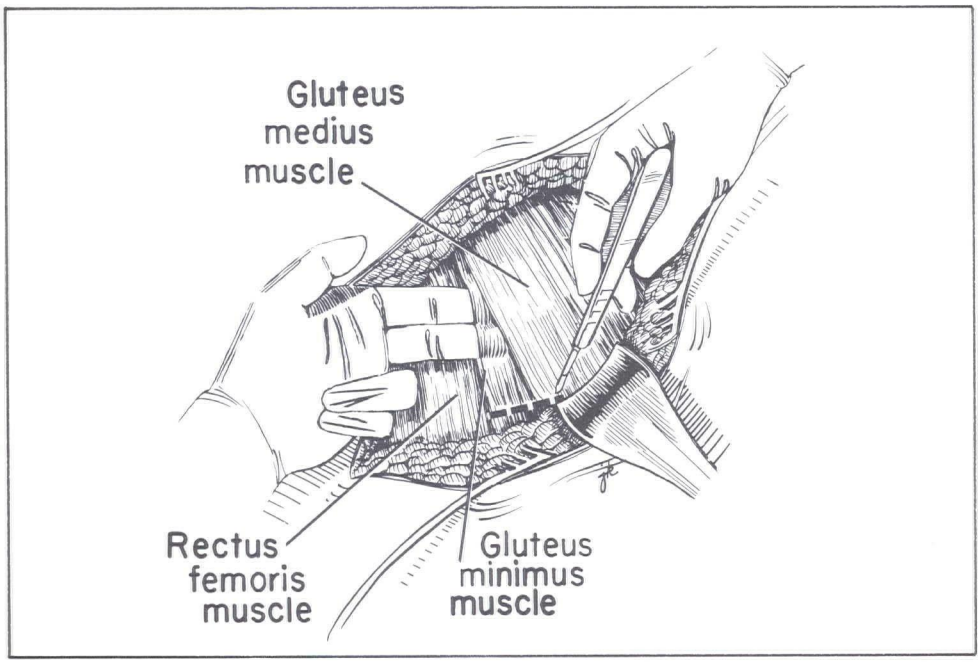

Figure 3

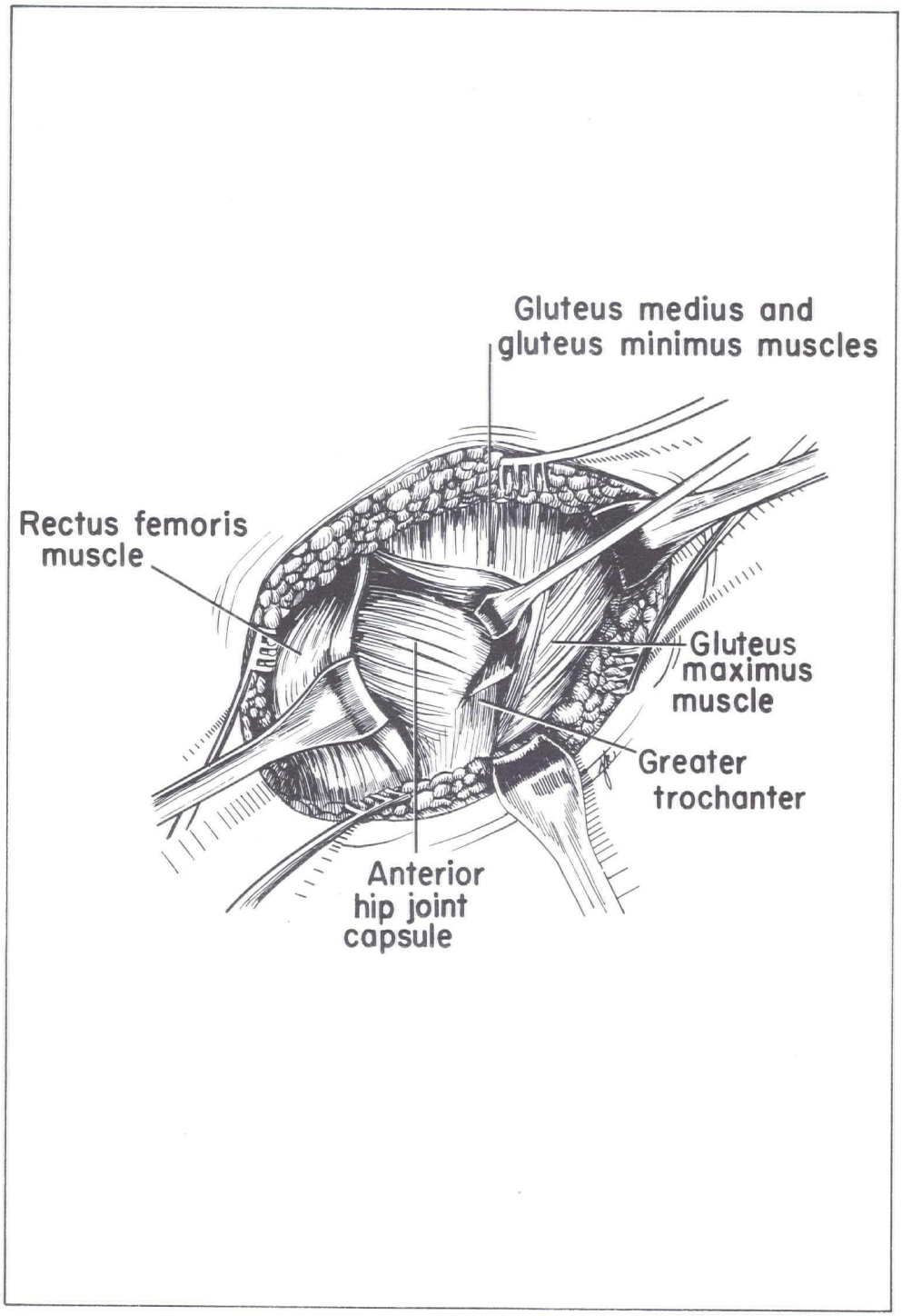
Gluteus medius and
gluteus minimus muscles
Rectus femoris
muscle
Gluteus
maximus
muscle
Greater
trochanter
Anterior
hip joint
capsule

Figure 4

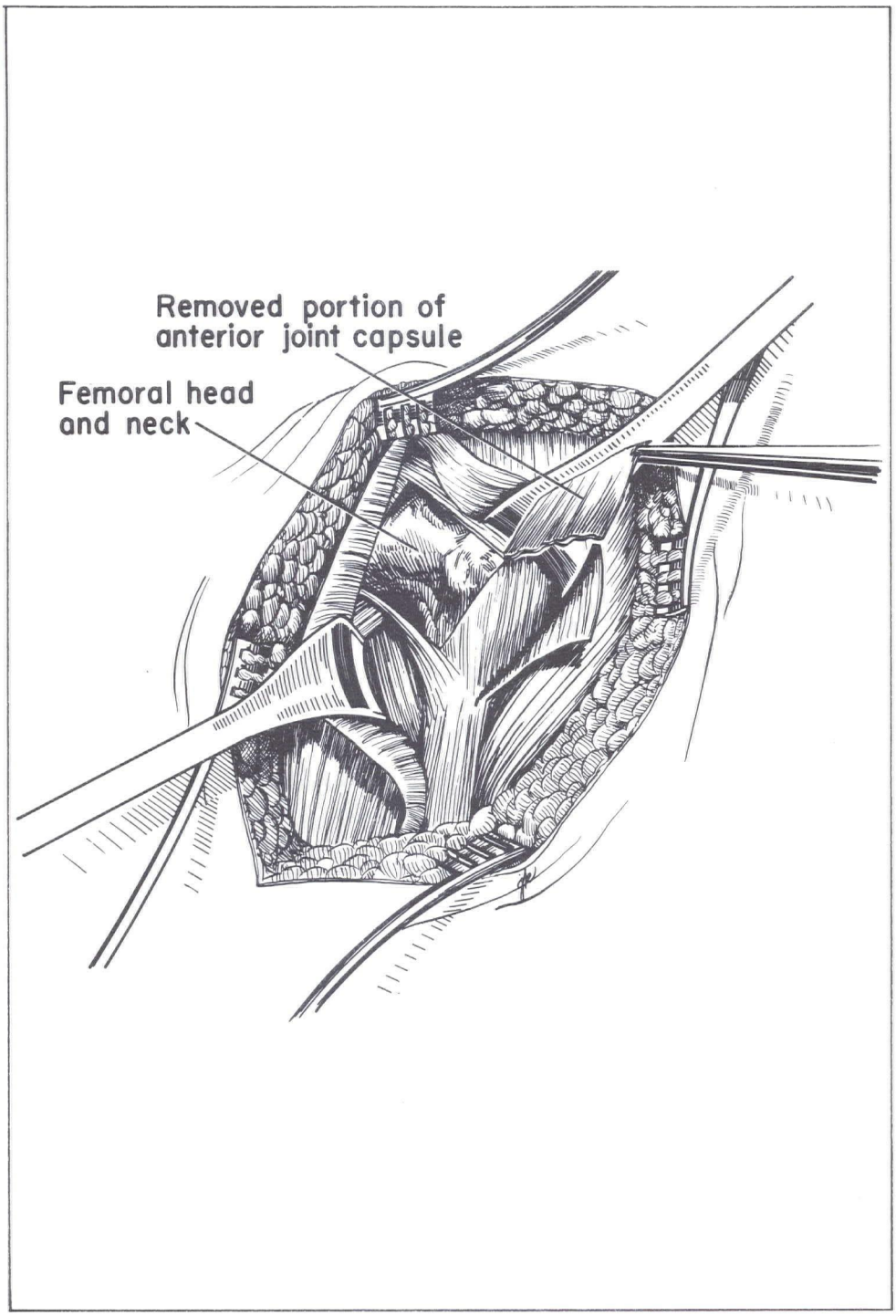
Removed portion of
anterior joint capsule
Femoral head
and neck

Figure 5

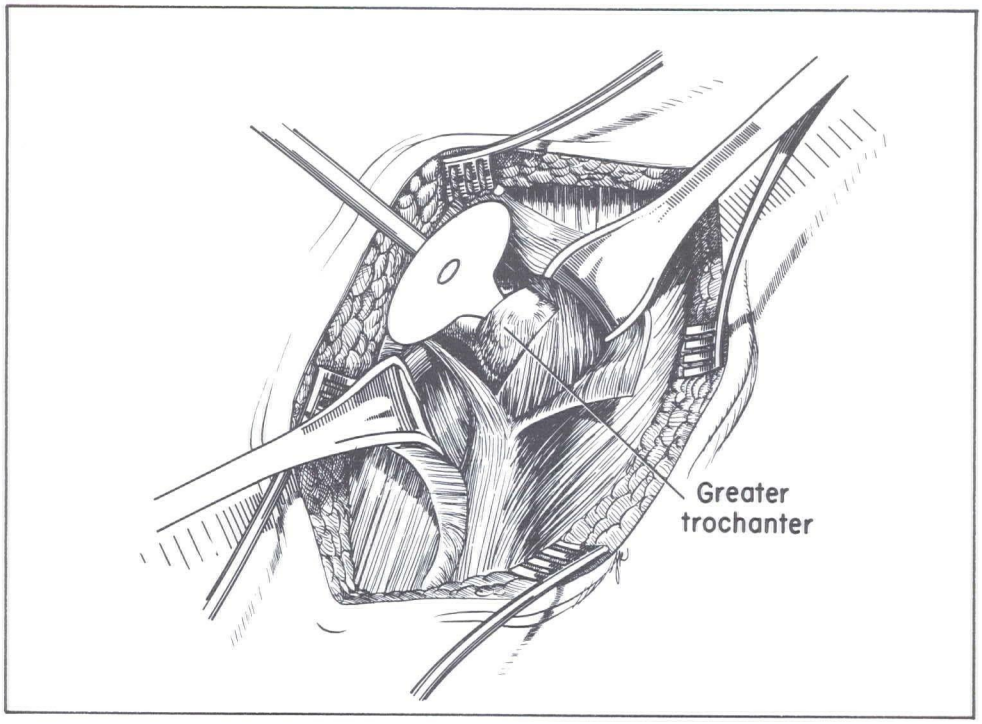

Figure 6

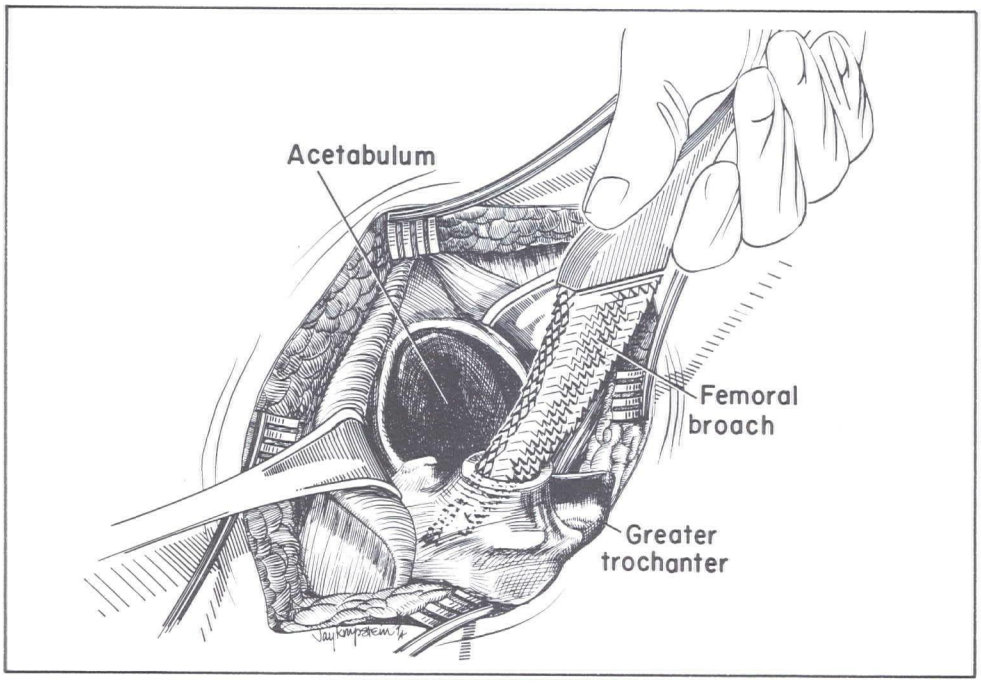

Figure 7

It differs from the standard lateral approach in several ways:

1. A much more oblique incision is used to facilitate visualization of the anterior, lateral and posterior aspects of the hip joint.

2. Splitting of gluteus maximus muscle and its fascia to gain wider access to the posterior aspect of the hip joint.

3. Partial detachment of gluteus medius and minimus muscles from their trochanteric insertions combined with a partial anterior capsulectomy to achieve wide exposure of the anterior aspect of the hip joint.

Technique

The patient is placed in a lateral position with the flank supported by kidney rests. The hip area is first scrubbed with betadine soap and then painted with betadine solution, followed by appropriate draping. The incision starts from the anterosuperior border of the sciatic notch. It extends obliquely downward and forward across the proximal portion of the greater trochanter and ends at a point in the anterolateral aspect of the upper thigh about four inches distal and anterior to the greater trochanter. The incision is carried down through the skin and subcutaneous tissue to expose the underlying fascia lata which is incised along the same line. The fascial incision is extended backward and the gluteal fascia and underlying gluteus maximus are split along the fibers (Figure 1). The tensor fasciae latae and the upper portion of gluteus maximus are retracted upward and forward and the lower portions of fascia lata and gluteus maximus downward and backward (Figure 2). The anterior attachments of gluteus minimus and gluteus medius are partially detached for a distance of about 3/4 inch (Figures 3 and 4). With the rectus femoris retracted medially, a partial anterior capsulectomy of the hip is performed (Figure 5). After osteotomy is performed at the appropriate level of the exposed femoral neck (Figure 6), the femoral head can be removed with ease. The leg is then flexed, adducted and externally rotated to bring the acetabulum and the osteotomized femoral neck into full view (Figure 7). At this stage, the oblique surgical incision and the partial detachment of the glutei greatly facilitate the reaming of the acetabulum and the proximal femoral medullary canal. The acetabular and femoral components of the total hip prosthesis are in turn cemented in place. The hip is reduced by using traction in combination with internal rotation and extension on the leg. The detached portions of the glutei are reattached to the greater trochanter with interrupted 0 Dacron sutures. The split gluteal fascia and fascia lata are approximated with the same sutures. The skin and subcutaneous tissue are closed with 3-0 Dexon and 3-0 monofilament nylon, respectively, in an interrupted fashion.

We have used this modified lateral approach to the hip in about 50 cases of total hip replacements with gratifying results during the past three years. Only a few patients have required blood transfusions during their operations. No intraoperative neurovascular complications or postoperative dislocations were encountered.

Acknowledgement

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