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(minimally invasive surgery, MIS)

2002 1 2002 6 86
(MIS) 19 19

7.1 cm, 16.7 cm
90 106.3
0.7 unit, 1.8 unit

가 가가

가 (minimally invasive surgery, MIS) Berger¹⁾ Crockett³⁾

Dorr⁴⁾

Berger¹⁾

Crockett³⁾

194

1,7)

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가 malposition

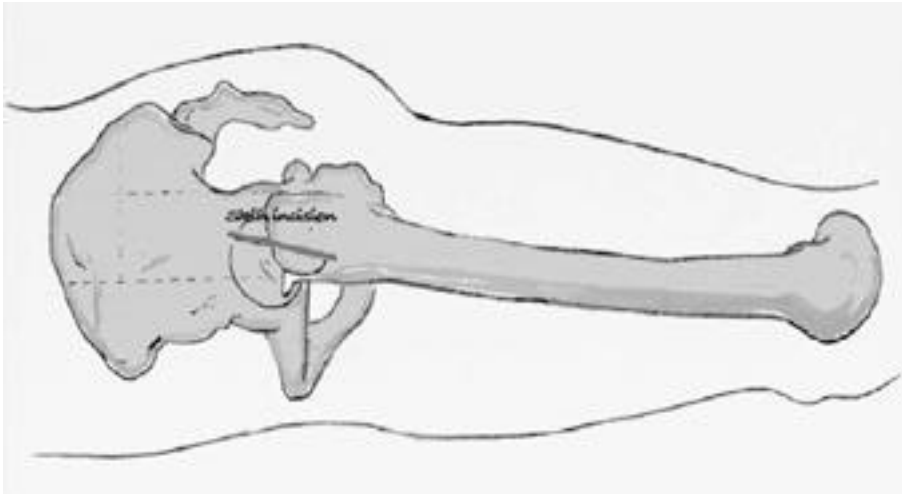


Fig. 1. The 5-9 cm skin incision for minimally invasive THA is centered over the greater trochanter.

가

2)

10 cm

1,3,4)

5~9 cm

(Fig. 1),

1/3

L-shape

(Fig.

2)

(Fig. 3).

(Fig. 4)

2002 1 6

86

가

19

5)

19

Hohmann

40

78

57.1

44

73

58.3

1~2 mm

가 14

가 5

3.6 (3~5),

4.5 (5~8)

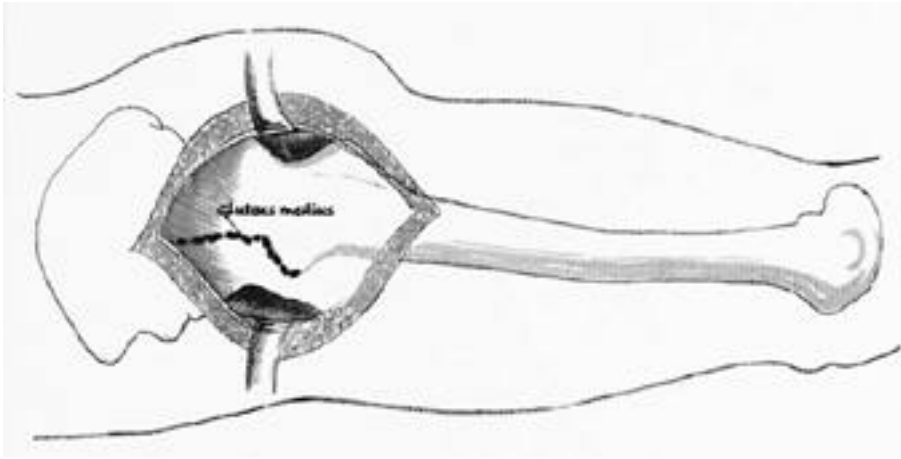


Fig. 2. L-shaped incision is made on the anterior one third of the gluteus medius.

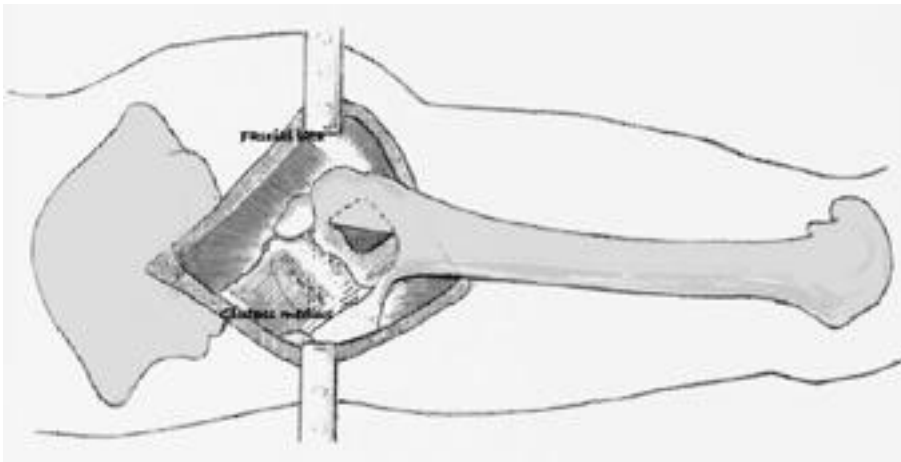


Fig. 3. Gluteus medius is reflected from the anterior aspect of greater trochanter.

(Fig. 5).

	Student's T-test	Chi-square	0.7(0~2) units,
test		p	1.8(0~4) units
0.05			가
			가
			1.9(1~4) , 4.3(2~9)
			2.5(2~9)
가	7.1(5~9)cm	, 6.4(3~7)	(Table 1).
	16.7(13~25)cm		
		90(35~120)	64.5(55~65),
	106.3(75~150)		66.2(54~67) ,

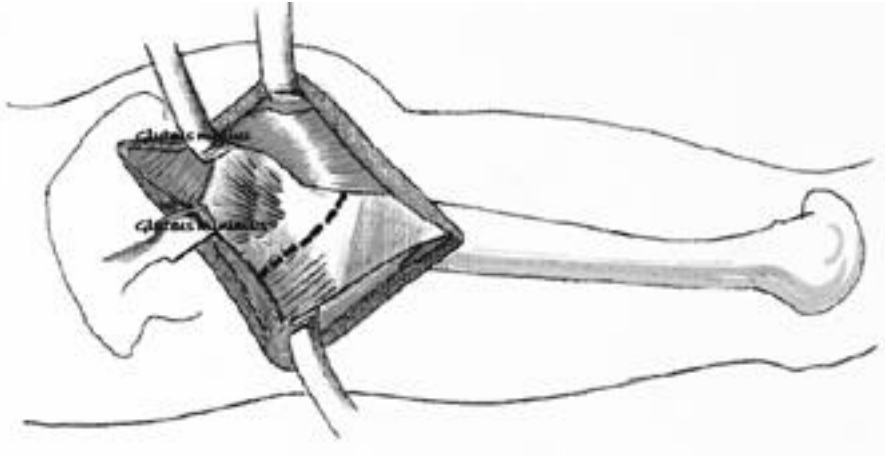


Fig. 4. Oblique incision is made on gluteus minimus and joint capsule.

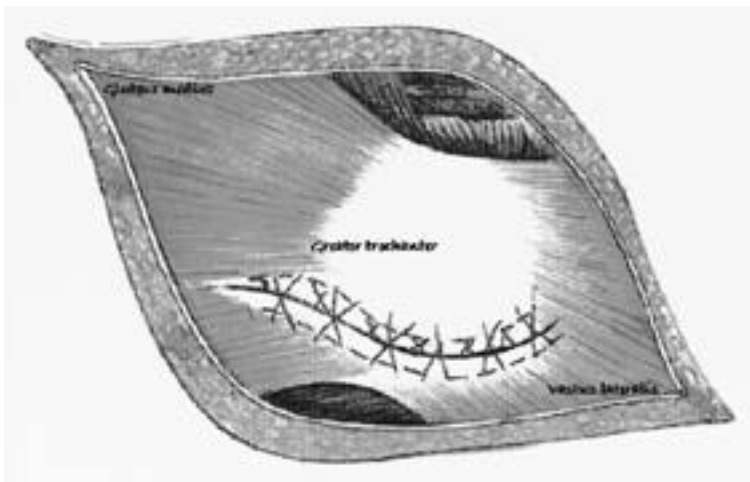


Fig. 5. Closure using side-to-side muscle approximation with an absorbable suture is made on gluteus minimus, joint capsule, and gluteus medius.

Table 1. Minimally invasive arthroplasty vs traditional incision arthroplasty

	Minimally invasive THA	Traditional incision THA	p-value
Number of cases	19	19	
Incision (cm)	7.1 (5-9)	16.7 (13-25)	0.005
Age (years)	57.1 (40-78)	58.3 (44-73)	0.785
Weight (kg)	62.3 (55-78)	61.2 (52-80)	0.811
Operation time (minutes)	90 (35-120)	106.3 (75-150)	0.071
Blood transfusion (units)	0.7 (0-2)	1.8 (0.4)	0.003
Rehabilitation (days)			
Leg-raising	1.9 (1-4)	2.5 (2-9)	0.321
Crutch walking	4.3 (3-5)	6.4 (3-7)	0.011
Malposition of stem & cup	None	None	
Complication	None	None	

10.5(8 ~ 15) 9.7(6 ~ 13),

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가

가 가

1,3,4)

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malposition
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2).

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Minimally Invasive Primary Total Hip Arthroplasty (Preliminary Report)

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Purpose: To evaluate the effectiveness of a minimally invasive (MIS) primary total hip arthroplasty.

Materials and Methods: Primary total hip arthroplasties were performed in 86 patients between January 2002 and June 2002. The incision length, the positions of the femoral stem and acetabular cup, operative time, transfusion units, postoperative rehabilitation time and complications were compared between the MIS (19 cases) and traditional incision (19 cases) groups.

Results: The average incision lengths were 7.1 and 16.7cm in the MIS and traditional incision groups, respectively. The postoperative positions of the femoral stem and acetabular cup were satisfactory in all cases. The average operative time and transfusion unit were 90 minutes and 0.7 units and 106.3 minutes and 1.8 units in the MIS and traditional incision groups, respectively. No intraoperative or postoperative complications were observed in any of the cases.

Conclusion: Minimally invasive surgery, in total hip arthroplasty, has the advantages of smaller incisions, smaller amounts of blood loss and shorter rehabilitation times. Further follow up is required to assess the long term complications.

Key Words: Total hip arthroplasty, Surgical approach, Minimally invasive surgery