





System for evaluating the fatty infiltration of
osteoarthritis using plain computed tomography

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3-Po
574

Relationship between hip and knee osteoarthritis and their
Geometric characteristics of lower extremity in TOBI Study, Japan

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Iliopsoas impingement
after total hip arthroplasty

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3-Po
576

Acetabular plastic revision after total hip arthroplasty with cemented
acetabular component for the treatment of the plastic hip

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3-Po
584-590

脊椎・
脊椎脊

3-Po
64-70

Knee

Results

- 71 patients (8 male, 63 female)
- 66.4 ± 12.2 years old

Table 3: Intra-observer and inter-observer reliability of the Goutallier and new classification system

	Goutallier				New			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Groutallier	0.52	0.54	0.41	0.52	0.54	0.52	0.51	0.10
SD	0.08	0.12	0.12	0.11	0.08	0.11	0.10	0.12
New	0.50	0.75	0.64	0.29	0.59	0.74	0.75	0.69
SD	0.08	0.08	0.13	0.06	0.08	0.11	0.08	0.10

Higher reliability of the new classification

Table 4: The correspondence of FI and OA grade

OA grade (K&L)	FI grade			
	0	1	2	3
0	5	3	3	0
1	6	5	3	2
2	3	8	11	7
3	1	1	0	6
4	0	1	0	15
Total	15	21	24	28

FI of Gen progressed incrementally
along with the OA progression (p=0.001)

Discussion

- We proposed a new classification system for the FI of the gluteus minimus using the plain CT and showed the higher reliability
- We clarified the positive relationship between the FI and OA grades

Previous studies

Previous studies used the Goutallier classification system to evaluate the FI of Gen. using MRI.
Drawbacks of the Goutallier classification using MRI:
- Goutallier classification was originally for evaluating the fatty infiltration of the hip.
- MRI is more useful when understanding three-dimensional bone structure before the hip surgery.

Why this new one has the higher reliability?

- Whole knee is understood
- Standardized on the Gen
- Evaluated all the patients who underwent total hip arthroplasty
- Relationship between the FI of Gen and the OA progression

Limitations

Relationship between the FI of Gen and the OA progression

RELATIONSHIP BETWEEN HIP AND KNEE OSTEOARTHRITIS AND THEIR GEOMETRIC CHARACTERISTICS IN FEMALE PATIENTS IN TOBI STUDY, JAPAN

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Purpose: We assessed the prevalence and clinical features of Iliopsoas impingement (IPI) after total hip arthroplasty (THA).

Methods: 238 patients with THA hips were evaluated with active straight leg raising test at the follow-up visit after THA. Every patient was more than one year after surgery.

Patients with hip pain during the test were diagnosed as having IPI.

3 We analyzed postoperative CT images of patients having IPI.

2 We compared patients with and without IPI in terms of ICA score and IACQ score.

2 Student T test was used for analysis.

Results: 22 patients (9.1%) are diagnosed as IPI in 238 patients. The acetabular cup protruded anteriorly.

In 22 patients, the acetabular cup protruded anteriorly.

There were no significant differences between two groups in total ICA score and total IACQ score.

Patients having Iliopsoas impingement had worse scores in ICA, ICA pain score, IACQ total score, and IACQ pain score.

Figure 1: Bar chart showing ICA scores and IACQ scores for patients with and without IPI.

Figure 2: Bar chart showing ICA pain scores and IACQ pain scores for patients with and without IPI.

Figure 3: Bar chart showing ICA total scores and IACQ total scores for patients with and without IPI.

Figure 4: Bar chart showing ICA acetabular scores and IACQ acetabular scores for patients with and without IPI.

Figure 5: Bar chart showing ICA femoral scores and IACQ femoral scores for patients with and without IPI.

Figure 6: Bar chart showing ICA soft tissue scores and IACQ soft tissue scores for patients with and without IPI.

Figure 7: Bar chart showing ICA joint scores and IACQ joint scores for patients with and without IPI.

Figure 8: Bar chart showing ICA functional scores and IACQ functional scores for patients with and without IPI.

Figure 9: Bar chart showing ICA quality of life scores and IACQ quality of life scores for patients with and without IPI.

Figure 10: Bar chart showing ICA patient satisfaction scores and IACQ patient satisfaction scores for patients with and without IPI.

Figure 11: Bar chart showing ICA patient satisfaction scores and IACQ patient satisfaction scores for patients with and without IPI.

Figure 12: Bar chart showing ICA patient satisfaction scores and IACQ patient satisfaction scores for patients with and without IPI.

Figure 13: Bar chart showing ICA patient satisfaction scores and IACQ patient satisfaction scores for patients with and without IPI.





















