Hip Arthroscopy Treatment of Synovial Osteochondromatosis

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Synovial Osteochondromatosis of hip joint

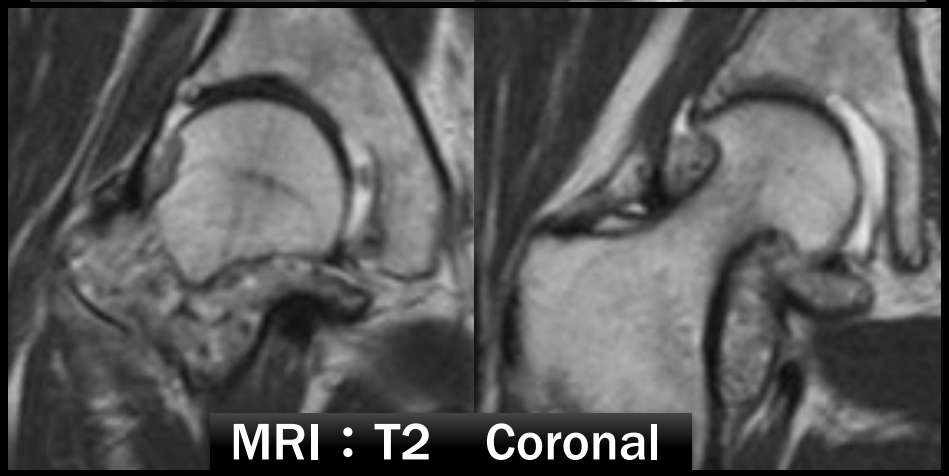
- In recent years, with the widespread use of hip arthroscopy, synovial osteochondromatosis is often removed.

- we report a case removed it by hip arthroscopy.

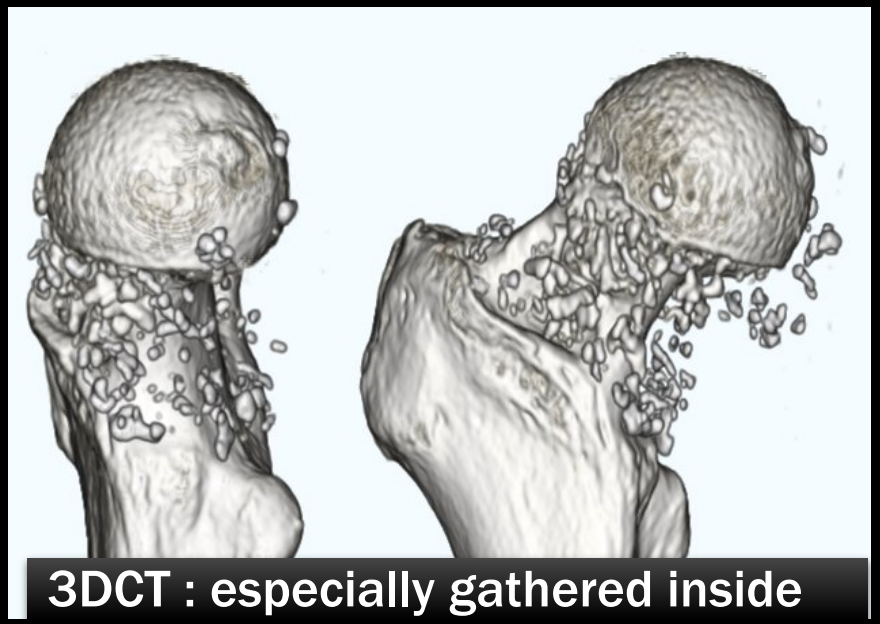
Case: 55 years old female

- Several months ago, she had a discomfort in her right groin and buttocks, and visited a nearby physician. Abnormal shadow on plain x-ray was found and consultation was conducted

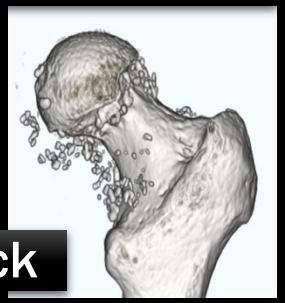
plain x-ray



MRI：T2　Coronal



3DCT : especially gathered inside and in front of the neck



Behind the neck

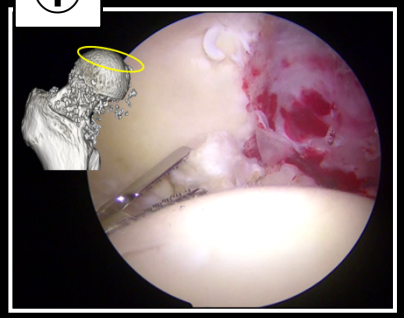
Function evaluation score （before surgery）

Japanese-orthopaedic-association-score (JOA Score)	88/100
Modified Harris Hip Score (MHHS)	79/100
JHEC	67/100

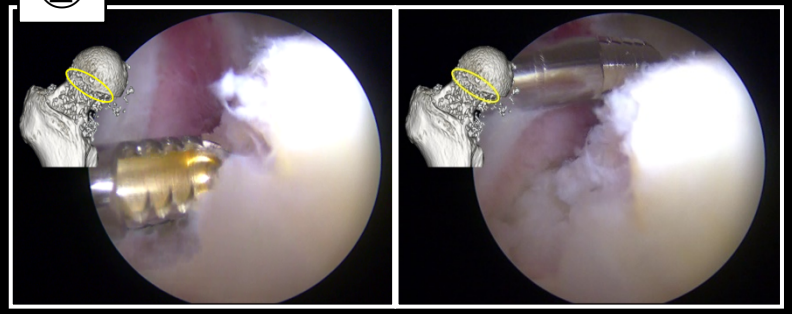
Intraoperative findings

- The Portal is ALP, MAP and Just above where the tumor was most concentrated
- Each portal was not connected

①



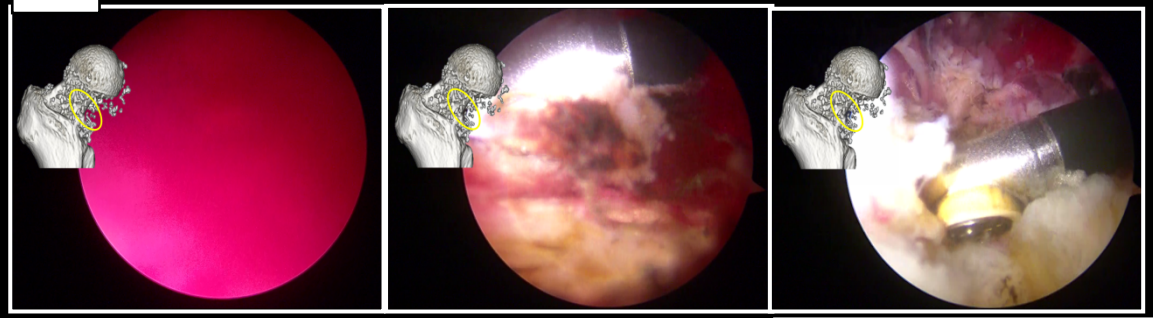
②



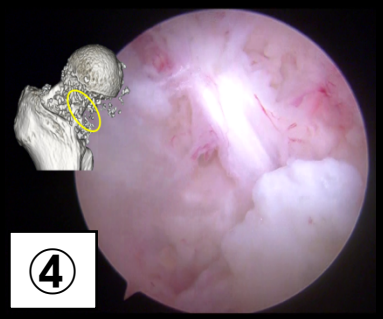
① We removed the tumor at Central compartment

② We Resect the tumor embedded in the femoral neck as much as possible

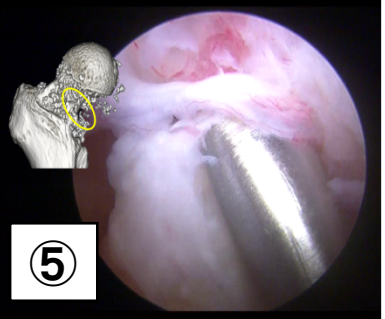
③



③Expose capsule just above where the tumor was most assembled while checking through Intraoperative fluoroscopy, and mede 3rd portal



④



⑤

④ Tumor is pushed by intra-articular pressurejumped out of the window

⑤ With the slot cannula in place, we catched it by grasper

⑥ We finished the operation without cupsule closure

Surgery time 3h 40min

⑦ We diagnosed Synovial Osteochondromatosis In postoperative pathological examination

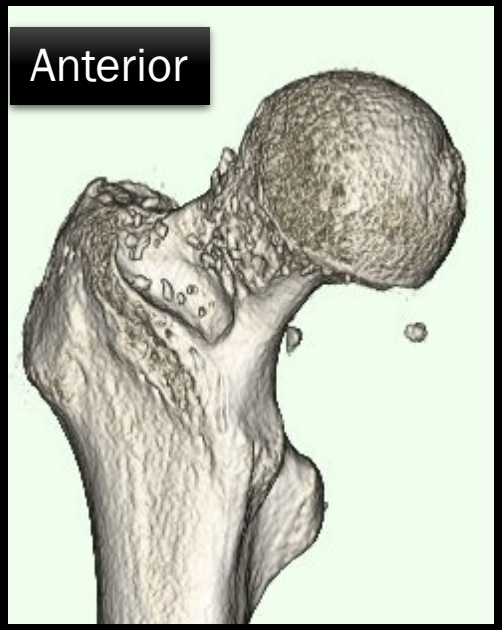
Postoperative X-ray / CT

Lauenstein View

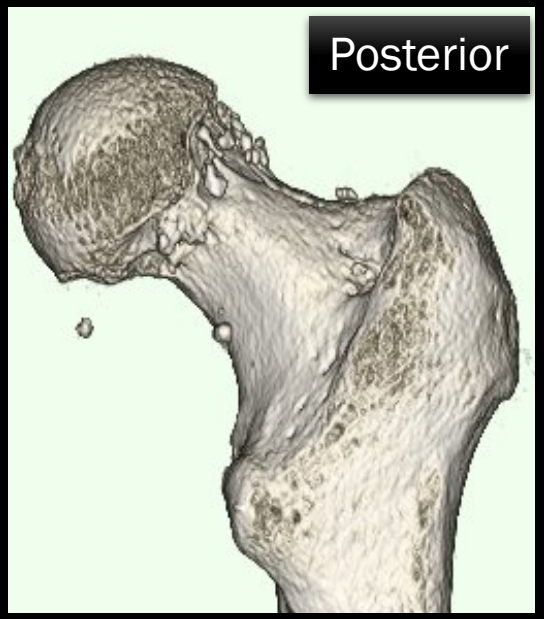
A-P View

Medial

Anterior



Posterior



Rehabilitation record

- Day 3 Barthal Index
  (ADL evaluation score)
  45/100
- Day 4 Independent walking
- Day 5 Independent stairs walking
- Day 7 BI:100/100,

Postoperative course: pain assessment (VAS) (10 points in total)

Time \ Postoperative days	1	2	3	4	5	6	7	8
8AM	3	2	2	1	5	2	2	0
12AM	3	2	1	1	2	2	1	
6 PM	3	2	1	5	2	2	1	

Function evaluation score (~3 months after surgery)

	Before surgery	1 M	2 M	3 M
JOA	88/100	94	100	100
MHHS	79/100	85	100	100
JHEC	67/100			100

Discussion

- synovial osteochondromatosis of the hip
- Accounts for 0.2% of hip disorders
- 8.6% of synovial osteochondromatosis in Japan　4.8% outside Japan
- Conservative therapy is poorly effective and generally surgery is the choice 1）

Surgical options

① Surgical Dislocation : Large invasive
② Lectoscopic extraction : Small invasive
③ Arthroscope + mini open surgery : Small to medium invasive

Recurrence rate

Surgical Disllocation⇒0～5% 2）

Arthroscope⇒20～38%　3）4）

Strategy for this case

- Should we aim for a complete invasive removal because it is a benign tumor?

- So we planned Arthroscopic resection
  ⇒ If there are many left behind,
  add to Mini open

- The result is only arthroscope

- Due to good course, patient also accepted reoperation for recurrence

Conclusion

- We performed arthroscopic resection for hip synovial osteochondrosis
- Symptoms disappeared, recovery was quick and patient satisfaction was quite high
- In the future, it is an issue how far we aim to extract it considering the size of the surgical invasion

1）Isao Ohki, et al.：Two interesting cases of synovial osteochondroma of the hip. Clinical orthopedics 12，1977

2） Lim SJ, et al. : Operative treatment of primary synovial osteochondromatosis of the hip. J Bone Joint Surg 2006

3） Boyer T, et al. : Arthroscopy in primary synovial chondromatosis of the hip. J Bone Joint Surg 2008

4）Marchie A, et al. : Efficacy of hip arthroscopy in the management of synovial chondromatosis. Am J Sports Med 2011

In connection with the presentation of the abstract,
There are no companies with a COI relationship to disclose.