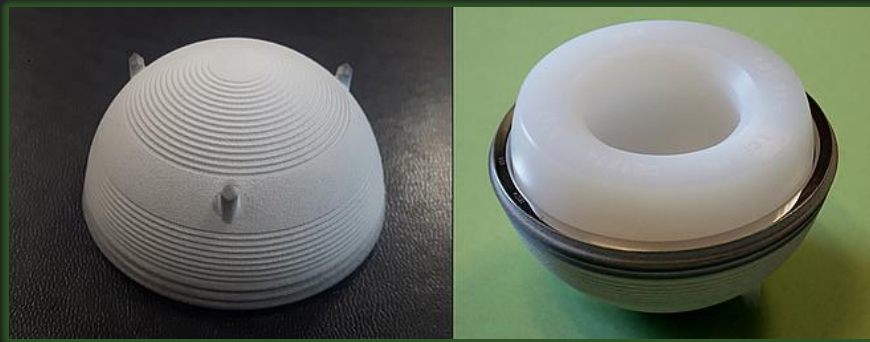


# ISIS II double mobility cup, a geometry without overhang with a lower risk of iliopsoas tendinitis

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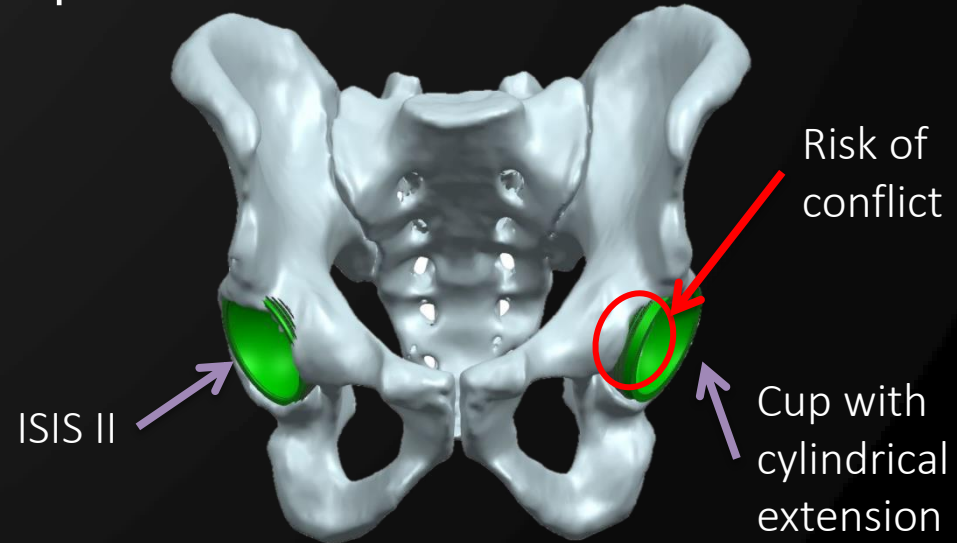


# Background

One of the complications of total hip replacement is iliopsoas tendinopathy (IPT) in connection with a conflict between the iliopsoas tendon and the prosthetic acetabulum. This complication occurs between 0.4 and 8.3% of cases. This could be favored by double mobility cups given their structure. Indeed, many of them have a sphero-cylindrical geometry which results in a prosthetic overhang compared to the bony acetabulum, which can promote tendon-implant conflict. Some acetabular cups such as ISIS II

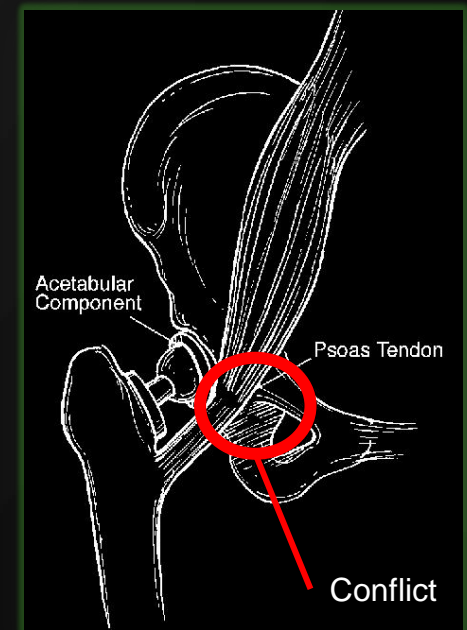
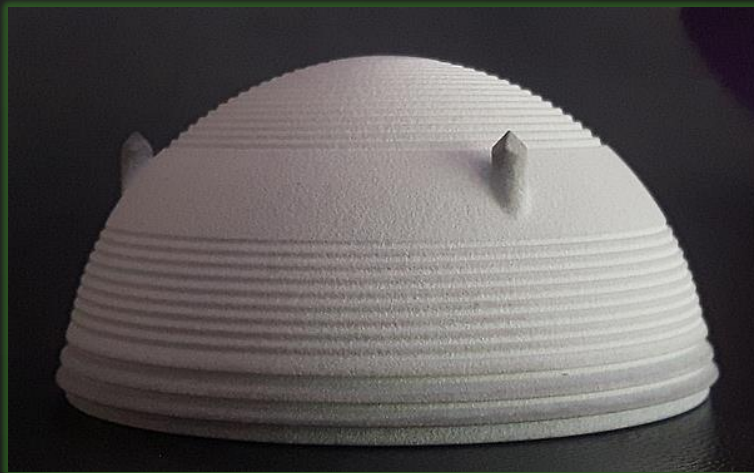


double mobility (ACDM) (I.Ceram, France) are purely hemispherical, which reduces their size and the risk of overhang. Its anchoring is ensured by an equatorial conical collar and three pins. We assessed whether not having an overhang prevented the occurrence of the IPT.



# Methods

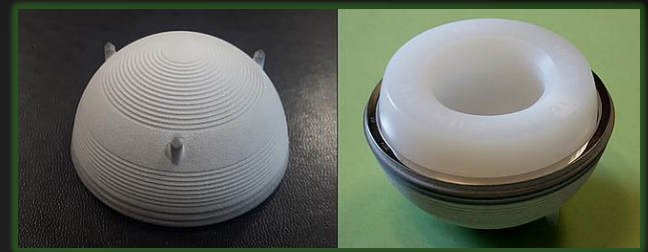
- We prospectively collected consecutive ACDM implantation and their follow-up.
- All patients were included in the analysis as this complication usually occurs in the first months after placement.



# Results

- The analysis covers 156 ACDMs.
- The average age is 74.7 years.
- The principal indication was primary hip osteoarthritis (87.3%) with no history of hip surgery.
- Only Moore's approach was used.
- Postoperatively, contact and stability was very good in all cases.
- Radiological control found an acetabulum centered in 99.3% of cases.
- The mean anteversion angle was 21.9 ° and the mean inclination angle was 48.3°.
- Support was immediate in all patients.
- In the rare cases (7.7%) where there was a postoperative border, it had disappeared at 1 year.
- At one year, out of 67 patients, the Harris score was 99.0 and the PMA 17.9.
- No IPT was diagnosed in the follow-up and there was no pain in the patients which could evoke this diagnosis.
- No mobilization of the acetabulum was visualized on radiological monitoring.

# Conclusion



- The purely hemispherical geometry without overhang can explain the absence of iliopsoas tendonitis by a decrease of the risk of tendon-cup conflict.
- Moreover, the absence of cylindrical extension is not deleterious for the risk of movement because the pins provide good and immediate bone anchorage.

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