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Femoral Button is Not Applied: Does It Matter ?

*Mohamed Amine Gharbi, Moatassem Belleh Jelassi, Ahmed Zendeoui,
Houssein Eddine Chahed, Anis Tebourbi, Ramzi Bouzidi, Khelil Ezzaouia,
Mouadh Nefiss*

*Department of Orthopedic and Trauma Surgery, Mongi Slim Marsa University Hospital
Center, Tunis, Tunisia*





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Disclosures:

- Authors (or a member of their immediate family) **DO NOT** have a financial interest or other relationship with a commercial company or institution.
- Authors declare that there is **NO CONFLICT OF INTEREST.**



BACKGROUND:

- The major disadvantage of suspended graft fixation is the interposition of soft tissue between the button and the cortical bone, with a detached appearance that is source of concern for the surgeon



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OBJECTIVE:

- The aim of our work was to evaluate the clinical repercussion of femoral button detachment on the postoperative evolution



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METHODS:

- We reviewed all patients operated between 2017 and 2020 who had arthroscopic single-bundle anterior cruciate ligament (ACL) reconstruction with suspended femoral fixation
- Any femoral button that was not perfectly applied to the cortex was considered detached



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METHODS:

- Postoperative anterior residual laxity was assessed by the Lachman test
- At 18 months follow-up, we assessed pain, stability and mobility of the knee according to the Lysholm-Tegner functional score



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RESULTS:

- 32 patients out of 297 operated on had a non-applied femoral button.
- 56% of our patients had less than 3 mm detachment on postoperative antero posterior radiograph, 25% between 3 and 6 mm and 19% greater than 6 mm ; among them 2 patients underwent a revision surgery for a major button detachment beyond the ilio tibial band.



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RESULTS:

- Four patients had residual laxity with no functional impact and two patients had an iliotibial band syndrome that was improved by medical treatment and rehabilitation
- At 18 months follow-up and according to the Lysholm-Tegner score, for the group of patients with an applied femoral button: 70% of patients had an excellent functional result, 17% good result, 9% fair result and 3% a poor result



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RESULTS:

- For patients with detached femoral button: 63% of patients had an excellent functional result, 28% good result and 9% had a fair result
- Our findings also reveal that there was no significant difference in failure rate between applied and detached femoral button
- Furthermore, there was no statistically significant correlation between the detachment degree and the functional results



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DISCUSSION:

- Soft tissue interposition between the button and the cortical bone remains quite frequent, especially at the beginning of the learning curve without a major impact on functional outcomes [1,2]
- Thus, many authors [3-5] proposed some technical tips and methods for prevention of soft tissue interposition such as direct arthroscopic visualization to confirm proper femoral button deployment and specially to prevent its extension beyond the vastus lateralis fascia or iliotibial band which might have a negative impact



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CONCLUSION:

- Our study showed that a non-perfectly applied femoral button does not have a negative impact on the postoperative evolution, however major detachment extending beyond the Ilio tibial band should not be ignored



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