

ACL grafts compliance during time: Influence of early solicitations on the final stiffness of the graft after surgery

Nouveau S

DRCI, France

The study design was to analyze with more accuracy the evolution of graft's stiffness during ligamentization time. We obtained the laxity and compliance measurements (in mm and $\mu\text{m}/\text{N}$), which we compared to the clinical instability after one year (after returning to pivot sports). Results were given in $\mu\text{m}/\text{N}$. Following the surgery (15 min after), nobody showed divergent curves at the beginning but 15% of the patients had divergent curves at 1 month after surgery (same surgery, same surgeon, same technique but not the same rehab after surgery). We noticed that patients who underwent a more aggressive rehab with higher constraints applied on the graft showed divergent curves (more compliance of the graft). However, if patients followed strict recommendations with less constraints applied on the graft, results after 1 Y were very good (parallel curves=good stiffness of the graft) with a high clinical stability. Nevertheless, it's only possible during the first 3 months to correct the compliance grafts (this is verified

with the follow-up of more than 1000 ACL patient files). This study has shown the influence of aggressive rehab and the influence of constraints applied outside rehab on the graft's compliance. In addition, it has a big role on the patient's knee instability following rehab. Also, the earlier you correct this, the more you decrease the risk of high instability in the future for patients. That's why we propose to do a compliance-metry test one month after surgery in order to allow a great follow-up of the ACL graft's compliance during one year: 1 M, 2 M, 3 M, 6 M and 1 Y post-op.

Biography

Nouveau S has completed his PhD in 1999 at British Osteopathic school. He's got a Physiotherapy State Diploma in 1988, osteopathic and medical studies in 90's – 2000. Several publications in ACL analysis with his colleague Dr Henri ROBERT.

nouveau@genourob.com

Received date: 23 June 2022; **Accepted date:** 25 June 2022; **Published date:** 30 August 2022