One-year follow-up of platelet-rich plasma to treat chronic upper patellar tendinopathies

Dr Jean-François KAUX1, Pr Jean-Louis CROISIER1, Pr Olivier BRUYERE1, M. Nicolas ROHR1, Mme Caroline LE GOFF1, Pr Jean-Michel CRIELAARD1

(1)University of Liège

Introduction

Infiltration of PRP may be used as a recent therapeutic option for chronic tendinopathies. The aim of the current study is to evaluate the clinic and the return to sports activities in patients with chronic upper patellar tendinopathies 1 year after 1 infiltration of PRP.

Materials and methods

The follow-up of 20 subjects who benefited from 1 infiltration of PRP was made before infiltration, after 3 months and 1 year after infiltration; it was made as follow: VAS, IKDC and VISA-P scores. Moreover, they had to answer an information questionnaire concerning their life and sports activities.

Results

Seventy percents of patients reported a favourable evolution with decrease of pain, 10% did never report any improvement and 20% were treated surgically. Eighty-seven percents returned to sports activities without any pain, and 50% of them recovered the same sport level. VAS has significantly (p<0.0001) dropped, IKDC significantly improved (p=0.0007) and VISA-P also significantly increased (p=0.0087) over the follow-up of 1 year (Fig. 1).

Discussion - Conclusion

Platelet-rich plasma is a relatively innovative treatment for chronic tendinopathies. During degranulation, platelets release various cytokines and growth factors which promote angiogenesis, tissue remodelling, and tendon healing. We used an apheresis machine that provided a reproducible PRP from one patient to another. The platelet concentration was always around 8.5-9 x 10⁵/µL, and it contained nearly no red or white blood cells.

This study confirms that a local injection of PRP coupled with a program of eccentric rehabilitation to treat a jumper’s knee, improves significantly pain symptoms and functionalities of the subjects’ knee up to 1 year. Most of the subjects (70%) were able to return to sport and half of them recovered the same level of sport activities.

Reference