

## Pure Dislocation of Patella

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### Case Report

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**Abstract:** We report in this work a rare case of dislocation of the right patella persistent until the reception of the patient in the emergency, shows the maneuver of reduction and its management in the emergency but especially its treatment of the cause which was a patella alta by a lowering of the anterior tibial tuberosity (ATT) associated with ligamentoplasty of the medial femoro-patellar ligament (MFPL). The result was satisfactory with no recurrence after two years of follow-up.

**Keywords:** Patella dislocation, Patella alta, MFPL, Ligamentoplasty.

### INTRODUCTION

Objective patellar instability (OPI) differs from potential patellar instability (PPI) and femoro-patellar syndrome (FPS) by occurrence of at least one dislocation of the patella. The latter can be frequent and is often transient in the place of the trauma since it is spontaneously reducible. Several etiologies are at the origin of this dislocation, and is still responsible for rupture of the medial patellofemoral ligament.

This work reports the case of a pure dislocation of the patella in a young man of 20 years whose etiology was a patella alta and who was treated by lowering the patella and ligamentoplasty of MPFL.

### CASE REPORT

It is about a patient of 20 years victim of a sport accident causing an external dislocation of the right knee following hyperflexion.

The dislocation was irreducible on the spot, the examination on admission found strabismus patellar, straight distal pulse well perceived and no nervous defecation. (Figure 1) X-ray confirms dislocation. (Figure 2)

The emergency attitude was to reduce dislocation under general anesthesia and immobilization by a removable orthosis with recess patellar. Reinforcement type rehabilitation of the vastus externus was prescribed from the first day after the reduction.

The aetiological radiographs based on a 30-degree profile radiograph and a TAGT distance measurement on the CT scan showed a Caton-Dechamp index at 1.6 without evidence of trochlear dysplasia or medialization of the ATT (Figure 3). Patient operated one month after dislocation and benefited from a surgical reduction of TTA (Figure 4). Associated with this one a ligamentoplasty of the MPFL by rigid technique by fixation BONE-BONE using the gracilis like graft. Result at 6 months was satisfactory and the decline at 2 years showed no recurrent dislocation of the patella.



**Fig-1: Patellar strabismus**



**Fig-2: X-ray confirms dislocation**



**Fig-3: 30-degree profile radiograph**



**Fig-4: Surgical reduction of ATT**



**Fig-5**

## DISCUSSION

The ligamentoplasty of the MPFL is now indicated after any dislocation of the patella and in front of any OPI, apart from the BONE-BONE rigid fixation technique that we used is the so-called Chassaing technique which is based on fixation on the soft parts and also the hybrid technique rather used in children allowing bone fixation on the patella and fixation at the upper third of the posterior portion of the lateral ligament [1].

Also note that several other grafts can be used outside the gracilis, mainly the ligament of the semi-tendinous and quadriceps tendon or patellar ligament [2].

Whatever the technique of ligamentoplasty, the key to success is the correct positioning at the level of the femoral slope which must be in the isometric point which is the junction between the tegente of the posterior cortical of the femur and the tangent of the upper face of the external condyle spotted under X-Ray [3].

The treatment of the etiology is also essential, first of all based on a good diagnosis and based on a precise radiological assessment including: Rx standard

profile at 30 and 60 degrees allowing to appreciate the index of Caton and the research of a crossing sign, and also measuring the distance TAGT on the scanner.

Thus are to determine the main etiologies which are:

The dysplasia of the trochlee

Patella alta

Lateralization of tibial anterior tuberositis

The first is will be treated by a trochleoplasty, the last two by a transposition of the ATT [4]

## CONCLUSION

Objective patellar instability remains a very common pathology but often goes unnoticed or under-diagnosed, the smile test allows us to appreciate the stability of the femoropatelelaire and the radiological assessment allows us to know the etiology.

However, whatever the etiology, the ligamentoplasty of MPFL is today essential to associate with the treatment of the cause.

## CONSENT

The patient has given their informed consent for the case to be published.

**AUTHORS' CONTRIBUTIONS**

All authors have read and agreed to the final version of this manuscript and have equally contributed to its content and to the management of the manuscript.

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