PATELLA DISLOCATION

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Abstract: *The patella is a small bone that is located in the anterior plane of the joint. The tendons from the quadriceps femoris muscle are attached to it on top. These tendons tightly wrap around the patella, thus forming a ligament and protecting the joint from mechanical damage. Among the total number of dislocations, such an injury is no more than 0.7%, so it is quite rare.*

Keywords: *acute pain, tibia, lateral or torsional, congenital dislocations, X-ray, external thigh muscles increase.*

A dislocation of the patella is understood as a violation of its location in relation to the tibia. Taking into account the direction, such a dislocation can be vertical, lateral or torsional. Such damage is invariably accompanied by acute pain, and movement in the knee becomes impossible. The main cause of such injuries is a strong blow or fall on the leg. In this case, the diagnosis can be made on the basis of X-ray data, and treatment is carried out by reducing the dislocation and subsequent immobilization.

In most cases, the cause of such a dislocation is a strong lateral blow to the patella area. The lateral type of dislocation is observed when the lower leg is open; such an injury does not occur too often. If the knee joint is bent, then even with a strong blow, dislocation is most often impossible. This is explained by the fact that the patella, when the joint is bent, is pressed by the muscles against the femur. Insufficiently developed external thigh muscles increase the likelihood of such an injury.

It is customary to distinguish between congenital dislocations and acquired traumatic ones. For such an injury, there is also an inveterate and an acute period. Depending on the direction of the displacement, it is customary to distinguish torsion, lateral, and vertical dislocations. It has been established that external dislocations are most often observed, while vertical and torsion dislocations occur extremely rarely. Depending on the specific type of injury, the way the patient is treated will vary significantly.

In the acute period, sharp pain is noted. In this case, the knee is slightly bent and at the same time can be slightly increased in volume. With severe lateral dislocations, an increase in the size of the knee is also noted. Immediately after a dislocation, active movement of the leg is impossible or difficult; the joint itself is limited and often very painful. By palpation you can determine the degree of dislocation with the direction of displacement. If there is a

long-term dislocation, significant deformity is noted when the patella is located outside the condyle.

Manipulation of self-reduction of the dislocation leads to sharp pain in the joint area. Often, minor swelling is subsequently noted, and there may be an accumulation of lymph and blood in the area of the knee joint. Therefore, you should refrain from trying to straighten the dislocation yourself - in such a situation, you need to contact a specialist, carry out the appropriate diagnostics, and only then, under anesthesia, reduce the patella with subsequent immobilization of the joint.

In case of acute dislocation, conservative treatment is usually performed. Under local anesthesia, reduction is carried out, for which the hip joint is bent, while the leg is extended at the knee. Only after this the patella is carefully adjusted, which allows the dislocation to be eliminated. At the same time, after reduction, a plaster cast is applied.

After reduction of the dislocation, a control X-ray examination is required to determine the absence of bone or cartilage fragments. The latter are often formed during such injuries. If the nature of the injury is acute, then after reduction the joint must be immobilized for up to six weeks. Any physical impact and massage are performed exclusively under the supervision of a physiotherapist. In this case, removing the plaster cast is prohibited. Only a month after the injury is full weight-bearing allowed on the leg.

If there is a possibility of repeated dislocations or the formation of cartilage fragments, surgical treatment is necessary. This operation is performed under local anesthesia and allows not only to straighten the joint, but also to remove possible cartilage fragments that prevent proper tissue healing. Habitual and chronic dislocations are also indications for surgery. After surgery, the joint is immobilized for up to 6 weeks. Full range of motion is allowed after 10 weeks.

One of the most common causes of patellofemoral joint pain is impaired movement of the patella in the intercondylar groove. The heads of the quadriceps muscle and ligaments help center the patella in the intercondylar groove of the femur during movement.

For various reasons, there can be an imbalance in the pull of the muscles, causing one of the heads to pull on the patella more than the other. This, in turn, causes greater pressure from the patella on the articular cartilage of the intercondylar groove on one side compared to the other. Constant asymmetric pressure leads to damage to the articular cartilage. In this case, the cartilage in the outer part experiences more pressure during movements. If such an effect occurs for a long time, softening and then destruction of the cartilage begins first. This phenomenon is called chondromalacia of the patella.

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