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**ULTRASOUND DIAGNOSIS AND TREATMENT OF LATERAL SEGOND AVULSIONS IN KNEE LIGAMENT INJURY.**

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In 2013 renewed attention was drawn to the critical lateral structures of the knee joint, by the thesis of Steven Claes. The Antero lateral ligament (ALL) was again described in combination with the Segond fracture.

The incidence of these fractures (based on MRI ) is described very low, usually under three percent.

**Hypothesis:**

We suspect that lesions can be found more frequent diagnosed using high resolution ultrasound.
After appropriate diagnosis, the possibility arises for refixation this avulsion lesion (complementary) in the case of a reconstruction procedure. We started refixation of the avulsion with the ligament using a staple .

**Methods:**

In 101 fresh injuries of the knee (within four weeks) data were collected by imaging studies (X-ray and Ultrasound HR), and these cases were further followed.

12 cases of ACL reconstruction were combined with anterolateral refixation using a staple .

CAOS of the combined procedure was used to record laxity before and after reconstruction using a Praxim system .

**Results:**

In 51 of the 101 fresh knee injury (50,5%), there was an anterior cruciate ligament injury,

16 women and 35 men aged 16–54 years (mean 27,3).

In 17 of the 51 ACL injuries a Segond avulsion (33 %) were recorded and in 22 of the 51 ACL injuries an impression fracture of the lateral femoral condyle ( 43%).

In 10 cases in which reconstruction was combined with ALL refixation improved stability was recorded both with clinical examination and with CAOS .

**Discussion:**
The treatment with refixation of Segond lesions is found only in case reports in the literature. However, there are many reports of persistent rotation instability after anterior cruciate ligament reconstruction. There is increasingly interest in the indication for lateral tenodesis. When refixation is an option the discussion is refixation alone or deepening and tightening of the lesion.

**Conclusion:**

High incidence of Segond lesions is found in ultrasound diagnosis.

The best treatment of fresh avulsion injuries opinions is still debatable.

CAOS can give increased feedback in performing and recording ALL refixation .



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