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### ACP therapy in severe osteoarthritis of the knee

**Introduction:** Knee osteoarthritis is a major problem in the European population from a medical as well as from an economical point of view. Surgical treatment implicates a long absence from work. Alternative treatments postponing major surgery to the age of retirement from work would be beneficial.

**Methods and Material:** Patients with severe knee osteoarthritis qualifying for knee replacement but not yet ready for major surgery are treated by four intraarticular injections of ACP (double syringe system, Arthrex). Injections are performed once a week. Lequesne and VAS score before and four weeks after treatment are evaluated. Two years after treatment patients are contacted via telephone. Those not requiring a knee replacement in the meantime and not requiring pain killers in daily living are considered as midterm success.

**Results:** As far 189 patients were treated, 109 women and 80 men aged 64.3 +/- 10.7 years. 28 (14.8%) patients showed no effect. Lequesne score was 11.4 +/- 3.9 before and 3.9 +/- 2.7 ( $p < 0.001$ ) after treatment. Regarding the Lequesne classes 119 patients were classified to the extremely severe and severe group before treatment whereas after treatment 172 patients were classified as mild or moderate ( $p < 0.001$ ). Consequently, the VAS score dropped from 6.6 +/- 1.8 before to 2.2 +/- 1.5 after treatment ( $p < 0.001$ ). Two years after treatment 146 patients were contacted (no one lost for follow up). 100 (68.5%) of them being classified as midterm success (no knee replacement, no necessity of pain killers). 33 (22.6%) patients had major surgery in the meantime. 13 (8.9%) patients underwent other therapies, mostly another ACP treatment.

**Conclusion:** Intraarticular Autologous Conditioned Plasma (ACP) therapy shows excellent short-term results reducing significantly the Lequesne score and class as well as the VAS pain score. Furthermore, the majority of the patients does not require major surgery for another two years, thus often postponing the time of surgery to the age of retirement and avoiding higher costs from incapacity to work.

### Biography

Michael Borsky is practicing surgery for 30 years. Graduated from the University of Zurich he spent most of his residency in institutions around the city of Zurich, including the Zurich University Hospital. At last head of surgical department in a country hospital in the larger Zurich area he founded together with another colleague in the year 2000 the "etzelclinic", a surgical and orthopaedic unit. In the meantime, the "etzelclinic" accommodates 8 surgeons, each team dealing only with one joint. He was from the beginning pushing the "orthobiology" treatments additionally to the surgical treatments of knee diseases, especially in knee osteoarthritis, being amongst the first in Switzerland offering intraarticular Platelet-Rich Plasma (PRP) preparations.

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