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**The Anterior Knee Portal use in Arthroscopic Surgery Differentially Affects the Infrapatellar Fat Pad**

The infrapatellar fat pad (IFP) is a richly innervated structure implicated in anterior knee pain, which is a common complaint after knee arthroscopy. Therefore, the possible effect of anterior knee portal paths on the IFP was investigated in 30 cadaveric knees from 24 donors (12 males and 12 females) with a mean age of 76.7, in compliance with the UK Human Tissue Act 2004. A needle was inserted at 5 portal positions in each knee: superior-lateral (SL), mid-lateral (ML), mid-patellar tendon (MP), mid-medial (MM) and inferior-medial (IM). The path lengths into the joint cavity and the path lengths through the IFP were measured. Path lengths into the joint cavity in cm +/- standard error were: SL 12.8+/-0.7, ML 17.0+/-1.3, MP 29.3+/-0.8, MM 29.3+/-1.2 and IM 33.2+/-1.0. Path lengths through the IFP were: SL 6.4+/-1.1, ML 9.6+/-1.1, MM 20.5+/-1.3 and IM 25.7+/-1.0. The mean path length through the IFP via the MP was significantly (P=0.05) longer in males (23.7+/-1.1) than in females (19.9+/-1.21). There was no correlation between any of the parameters measured and the height of the subjects. These data suggest that lateral and superior portals should be used if possible, to minimise mechanical damage to the IFP.