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A new fixation device and technique: EFECE

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Introduction: EFECE is a patented fixation device. It is cylindrical shaped and contains 2 pieces that catch each other with threads. EFECE contains 3 balls in cone shaped gloves. It has surgical tool set which is a new technique. With EFECE systems; along the EFECE wires, surgeon may compress the fracture line and after locking EFECE, fixation may be achieved. The smallest EFECE, which is with 6 mm radius, can be used with 1.2 mm EFECE wire. 6 mm EFECE resist up to 73 kg of distraction force. EFECE scales are; from 6 mm to 20 mm radius. EFECE wire scales are; from 1.2 mm to 3 mm.

Technique: After reducing the fracture, EFECE wire should be passed across the fracture line. With percutaneous technique, EFECE should be advanced on the EFECE wire to the bone cortex, with the help of the patented tools. Then EFECE should be fastened. From the counter side of the EFECE wire, the second EFECE should be advanced to the bone cortex. Then, EFECE wire should be tensioned with EFECE wire stretcher and the EFECE should be fastened. The remaining part of the EFECE wire should be cut with the EFECE wire cutter. Implant removal is with the help of EFECE magnets. EFECE systems are able to achieve fixation with the help of thin EFECE wires. The fixation strength is not related to bone quality. Thin EFECE wire achieve fixation in difficult bone anatomy like elbow. Technique is completely percutaneous. Indication scale is wide. Implant removal with magnets is also a new approach for implant technologies.

Biography

Emre Karadeniz has completed his MD at the age of 24 years from Osmangazi University School of Medicine and Residency from Baskent University School of Medicine. He has completed his spine surgery fellowship from Hacettepe University and Istanbul Spine Center. He is the Lecturer of Umraniye Training and Research Hospital. He is the inventor of EFECE fixation systems and has more than 10 national and international patents.

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