SCREW CUT-OUT BLINDED BY INTRAOPERATIVE IMAGING DURING FEMORAL NECK OSTEOSYNTHESIS

Nicholas Aw Shao Jiun[1], Mohd Hisam Muhamad Ariffin[1], Zulkiflee Osman[2]

[1]Universiti Kebangsaan Malaysia Medical Centre, [2]Hospital Pulau Pinang

Introduction: Femoral neck osteosynthetic is indicated for young adult1. An incidence of 10/100,000 a year has been reported for those below 54 years in Malysia. Important early complications include screw cut-out1. Inaccurate screw placement results in immediate screw cut. We report an interesting case where screw placement perfectly follows accepted standards under image intensifier guidance1; yet is revealed to suffer from disastrous placement when formal post-operative radiographs are reviewed.

Discussion: A 54-year-old alleged road-traffic accident victim who sustained an intracapsular left femoral neck fracture underwent cannulated screw fixation. Intraoperative imaging by image intensifier during the course of the procedure did not reveal anything untoward with regard to screw placement. Immediate post-operative radiography however revealed unintentional screw cut-out at the femoral neck, necessitating emergent corrective surgery, a complication for which the patient had already been counselled for prior to undergoing the surgery. Revision surgery being uneventful, subsequent follow-up showed a return to pre-morbid function. The maxim paraphrased that any surgeon who has never encountered a surgical complication has not performed sufficient surgical procedures might very well be true, but prevention is better than the best cure.

Conclusion: Pre-operative positioning, followed by fracture reduction under properly practised and calibrated image-intensifier guidance as outlined, prior to painting the patient, is indeed important to reduce the complication of cannulated screw exit or cut-out during femoral neck osteosynthesis. Precise image interpretation, and thus fracture fixation, is possible only if the Orthopaedist knows how to obtain the correct standardised intraoperative views2.