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## Is closed reduction and percutaneous pinning is an alternative for displaced lateral condyle fractures in children?

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**Background:** Open reduction and internal fixation is an ideal treatment for displaced unstable lateral condyle fractures. Very few studies have focused on the closed reduction and percutaneous pinning (CRPP) of displaced lateral condyle fractures in children. We prospectively studied the CRPP for minimally displaced as well as displaced lateral condyle fracture except completely rotated fractures to evaluate the functional and radiological outcomes.

**Methods:** We classified the fractures according to the Song et al classification system based on the pattern and displacement of fractures. We included the stage II, III and IV of lateral condyle fractures excluding Stage I and V. Twenty-three patients were finally enrolled in the study. Fractures were reduced under C arm by varus and longitudinal traction force and fixed with 2 or 3 parallel K wires. Functional outcomes were evaluated according to the Hardacre et al scores.

**Results:** The Average age of patient in our study was  $7.91 \pm 2.44$  years with 15 (65.22%) of male and 8 (34.78%) of female. There were 13 (50.52%) fractures in left side and 10 (43.48%) in right side, 9 (39.13%) of fractures caused by fall from height. Time to unite the fracture was  $6.21 \pm 1.08$  weeks and total duration of hospital stay was  $1.65 \pm 0.57$  days. There were 22 (95.65%) of excellent and 1 (4.35%) of good results according to the Hardacre et al scores.

**Conclusion:** Closed reduction and percutaneous pinning can be tried successfully in minimally displaced unstable as well as displaced unstable lateral condyle fractures with excellent functional outcomes provided the good assessment of pattern and displacement of fractures by internal oblique views.

### Biography

Kapil Mani K C is currently working in Civil Service Hospital, Department of Orthopedics Minbhavan, Kathmandu as an Orthopedic Registrar since July 2011. After 2013, he is acting as an Assistant Professor as well as Orthopedic and Joint Replacement Surgeon. He is actively involved to attend the patients in OPD and Emergency department as well as to perform the operations in routine and emergency basis every day. Besides, he is involved in teaching and learning activities in the hospital.

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