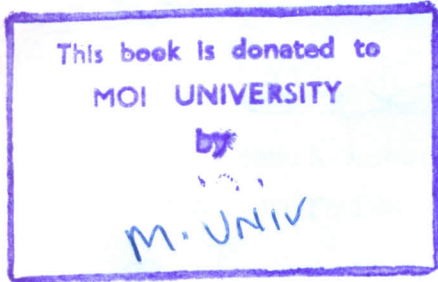


OUTCOME OF TREATMENT OF DISPLACED EXTENSION TYPE
SUPRACONDYLAR FRACTURES OF HUMERUS IN CHILDREN AT MOI
TEACHING AND REFERRAL HOSPITAL

BY



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ABSTRACT

Title: Outcome of treatment of displaced extension type supracondylar fractures of humerus in children at Moi Teaching and Referral Hospital (MTRH).

Background: Completely displaced supracondylar fracture of the humerus is a common injury in children. Various methods of treatment exist and the aim of treatment is to have an acceptable functional outcome. Poor outcome can significantly affect limb function. Although various methods of treatment are employed, no outcome study has been done locally to evaluate these methods.

Objective: To describe the treatment methods for the displaced extension type supracondylar fracture of the humerus in children at MTRH and evaluate outcome of such treatment methods.

Study site: MTRH pediatric surgical wards and out patient fracture clinic.

Study design: Prospective descriptive study.

Subjects: Children 14 years and below meeting the inclusion criteria.

Methods: Using purposive sampling, 39 patients who met the inclusion criteria were included in the study. Initial clinical findings were recorded. The method of treatment and Baumann's angle were documented. At follow up, carrying angle loss and range of motion loss were documented including the complications identified at the time. Data analysis was done with R statistical package. Rating of outcome was done using criteria proposed by Flynn et al. The duration of follow up was 9 to 12 months.

Results: 39 patients were involved in the study, aged between 2.5 years and 13 years. Male subjects were highly represented (72%) with falls as the commonest cause of injury (95%). 69% of patients presented within 12 hours while 31% presented beyond 12 hours. Two patients (5%) had deficiency of radial pulse while 1 (3%) had radial nerve deficit. Closed reduction and percutaneous pinning and open reduction and pinning were the main methods of treatment with 59% and 38% of patients respectively. The prevalence of abnormal Baumann's angle was 61%. 95% of patients received physiotherapy. Closed reduction and percutaneous pinning offered good to excellent outcome, while majority of those with poor outcome were treated with open reduction and pinning. There is no association between time of presentation and outcome.

Conclusion: Closed reduction and percutaneous pinning is associated with satisfactory outcome.

Recommendations: Closed reduction and percutaneous pinning should be adopted as preferred treatment. Long term study needs to be done to determine long term results.