A Comparison of Delayed and Early Diagnosis of Operative Results Gained Through Internal Fixation of Lateral Humeral Condyle Fractures in Children

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ABSTRACT

Background and objectives: Lateral humeral condyle fracture is one of the most common fractures during childhood. Delay in operation and internal fixation often associated with hopeless treatment results. The goal of this study is comparison of complications and operation outcomes between the patients that underwent early operation with the patients that underwent delay operation.

Materials and methods: This study was prospective and case series, performed on 60 patients from May 1998 to 2004. The patients were divided into two groups. The first group included 30 patients, treated during first week after lateral humeral condyle fracture, and the second group included 30 patients treated between 7 to 28 days after fracture.

Method of operation was similar for the two group patients. All of the patients were studied for 12 to 30 months after treatment.

Results: In the first group, 16.66% were diagnosed to have Milch I and 83.34% Milch II fracture. As for displacement, 10% of the patients were in stage I, 40% stage II and 50% stage III, in the second groups 20% of fractures were diagnosed to have Milch I and 80% Milch II. As for displacement, 13.3% of patients were in stage I, 33.3% stage II and 53.4% were in stage III. Most of the patients in the first group were in excellent conditions considering the range of movement of elbow; however, in the second group they were mostly in moderate and poor conditions. The most common cause of delay in treatment was fracture handling by bonesetter.

Conclusion: Delay exceeding 1 week in treatment of lateral condyle fracture will be followed by numerous complications. To prevent delay in operative treatment the public culture for early and true treatment must be reformed.

Key words: Lateral humeral condyle, Delayed diagnosis, Internal Fixation