ACUTE CORRECTION OF DISTAL FEMUR IN GENU VALGUM

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INTRODUCTION:

Genu valgum attributed to distal femur deformity is a relatively uncommon condition with varying etiology. A more ideal method of treatment will be a single staged surgery for correction of deformity and stabilisation with an internal device. This study aims to investigate the rate of union, radiological outcome and survivability of a single stage surgery of acute correction and fixation with a locking plate of distal femur severe genu valgum amongst cases done in University Malaya. It also investigates the functional outcome of this procedure done. Based on the data collected, acute correction of distal femur deformities in genu valgum is a viable and safe method of treatment with good survivability and functional outcome.

METHODS:

Cases selected were patients with genu valgum attributed to distal femur deformity. Measurements of radiographs were done in the PACS program. Collection and assessment of functional outcome done via SF-36 questionnaire.

RESULTS:

A total of 14 patients and 16 knees were drafted into this study. **Demographics** showing 5 were female(n=5) and the remaining 9 were male(n=9). A total of 10 individuals out of 14 took part in answering questionnaire. SF-36 Most of participants recorded a positive score in response to surgery. In general, only 3 participants recorded negative scores in certain scales within SF-36. There were no complications recorded amongst the cases done.

Pie chart showing the distribution of valgus correction done(range of percentage shown).



DISCUSSIONS:

Although the amount of bony realignment done in these cases were high for a single staged surgery, there were no complications noted after the operation and in follow ups. The mean correction percentage for all cases studied was 75.4 percent. Peroneal nerve decompression and mobilisation are essential in avoiding nerve insult or permanent damage secondary to acute valgus correction.

CONCLUSION:

Genu valgum presents itself as more than just a cosmetic issue but also a functional one. Surgical correction has shown to generally improve the functional outcome of the individual in majority of the aspects studied. With the advent of new surgical techniques, modern surgical tools and improved orthopaedic implants, it is shown than single staged acute correction of distal deformity in genu valgum with internal fixation is a safe procedure to be considered.

REFERENCES:

- 1. Edgerton 1993, Clinical orthopaedics and related research (288), 263-269.
- 2. Healy 1989, *JBJS*, 71(5), 698-703.