

Reviewer 1

Although similar studies are numerous, exact measurement of compartment pressure is seldom done. Therefore, the value of this study is elevated. The manuscript writing is intact but English grammar is poor. English revision is absolutely necessary. Some doubts require clarification: 1. A common noun may be singular or plural, which requires distinction. e.g. Fractures. 2. Sometimes tibia fractures are used and sometimes tibial fractures are used. Both should be consistent. 3. It is unbelievable. Clinical union occurs at 25 weeks and radiological union occurs at 24 weeks. Why clinical union time is longer than radiological union time? Sequelae of compartment syndrome will introduce leg pain. Can you use the symptom of painless full weight bearing to define clinical union? 4. According to your definition, within 6 months is considered as normal union time in complex tibial fractures. More than 6 months is defined as delayed union. Is it reasonable for complex fractures? 5. 29 patients were divided into three groups. Each group was not normally distributed. Therefore, ANOVA cannot be used. Non-parametric tests should be used. 6. The description of Results and Discussion should be condensed. It makes reading confusing and disturbing. 7. The styles of reference writing should be consistent. It requires re-checking.

Response by the author

The grammatical corrections were done. Uniformly the term 'tibial fractures' has been used. For clinical union, an ability to bear full weight without any pain at the fracture site was considered, however the residual effect of ACS may have some influence on the decision. Because of contracture some patients may have pain on weight bearing and that might have caused a longer clinical union (25 weeks) time than the radiological union (24 weeks). We have taken the standard definition of delayed union and nonunion as proposed by FDA when comparing the group means, One way ANOVA is used. The statistical part has been verified by a biostatistician. Results and Discussion has been amended. Reference has been inserted as per the journal requirement.

Reviewer 2

The authors evaluated patients with tibia fracture and compartment syndrome. The authors found the correlation between compartment pressure and the functional disability. The article is well-written. Is there relationship between the duration from the onset and the functional result? The number of figures is too many. Is multivariate analysis necessary? Is there a relationship between the function and specific symptoms such as ankle stiffness?

Response by the author

Yes, there is a relationship between the duration from the onset and the functional result?

We considered delay of more than 6 hours to be significant and evaluated the outcome of patients. The average delay in fasciotomy was 9.8 hours in patients who underwent amputation and 7.7 hours in patients who didn't end up with amputation; but, there was no statistically significant difference in these two groups (independent t-test, $p=0.564$). There were 14 patients who were late for >6 hours in fasciotomy; 4 had good functional outcome (LEFS score >60%) and 10 had poor outcome (LEFS score <60% or amputation). Among remaining 16 patients who had fasciotomy done within 6 hours, 9 patients had good functional outcome and 7 had poor outcome. Although it appears that delay in fasciotomy for more than 6 hours affects the eventual functional outcome, it was not statistically significant in this study (Pearson's chi-square=2.330, $p=0.159$). Both delay in fasciotomy and total time

since injury showed negative relationship with LEFS with a slightly better correlation of time from injury to fasciotomy, but it was not statistically significant [fig 7].

Figures are actually clearly depicting the study and its results. The statistical part has been evaluated by a statistician. Ankle stiffness was most common complication and it has poor functional outcome.