

## Papineau Bone Graft In Osteomyelitis Non Union Long Bone Fracture: Case Series

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### INTRODUCTION:

Osteomyelitis (OM) in long bone fracture remains a difficult problem for the orthopaedic community. A recent study in 2013, 12 of 52 (23%) of patients developed infections after an average of 3 procedures per limb. Our country is not an exception to OM. Study was done in Hospital Tengku Ampuan Afizah Kuantan 2016, 47 patients developed post traumatic (OM) will end up with poor functional outcome and lower quality of life (1). The Papineau, technique have been widely cited in the treatment of (OM). Study was done on 2013 in China, 15 patients were treated with Papineu technique. Bone union was achieved in 93.3% (14/15) of patients (2).

### CASE SERIES:

Descriptive case series

1<sup>st</sup> case from November 2014 – October 2015

58 year old with underlying schizophrenia MVA sustain open right tibia fracture grade 2. Done multiple wound debridement, complicated with (OM), than decide for papineue technique in view keen minimal surgery and difficult wound care compliance.

2<sup>nd</sup> case from August 2014 – December 2015

25 year old MVA sustain open fracture right supracondylar femur grade IIIA. Done multiple debridement and removal implant, complicated with (OM). Finally opted for papineu technique because not keen for further operation

3<sup>rd</sup> case from March 2013 – August 2015

71 year old MVA sustain open fracture grade II left tibia plateau. Multiple debridements, external fixation, insert and removal implant was done. In view of old age and risk of operation, they opted for Papineu bone graft technique.

### RESULTS:

From 3 patient case series, bone achieves united and free from infection. All patient able to full weight bearing without crutches.



### DISCUSSIONS:

Papineau describe an open bone grafting technique for the treatment of chronic (OM). This procedure is based on the principles granulation tissue resists infection, autologous cancellous bone grafts are rapidly revascularized and resists infection, the infected area is completely excised, adequate immobilization is provided and the antibiotics are used(2). All 3 patient in our case series had establish osteomyelitis and nonunion and all had previous failed operation with wound debridement and antibiotics. Our Papineau technique with secondary healing was effective in salvaging difficult case scenarios. Full fill the patient satisfaction with minimal hospitalization

### CONCLUSION:

Our Papineau technique with secondary healing was effective in salvaging difficult case scenarios.

### REFERENCES:

- 1)Nazri Mohd. Yusof, , IIUM ; Post traumatic osteomyelitis of the femur or tibia; 2016
- 2)Modern papineu technique with vacuum-assisted closure Michael T Archdeacon, 2006
- 3)Zhouming Deng, .One-stage reconstruction with open bone grafting 2013.