

Comparing Between Figure Of 8 And Arm Sling In Midshaft Clavicular Fracture In Malacca General Hospital

Goh TC, Thirumurugan N, Khor SS, Kavitha S, Tay SL

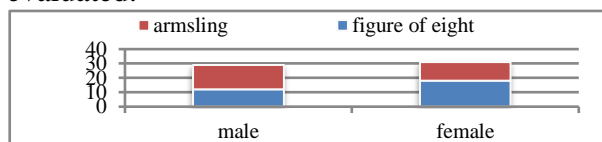
Orthopaedic Department, Hospital Melaka, Jalan Mufti Haji Khalil, 75400, Melaka, Malaysia.

INTRODUCTION:

The clavicle is the most common bone fracture in the human body, accounting up to 5% to 10% from all fractures seen in emergency admissions in hospital. Midshaft fracture or known as middle third fracture of the clavicle is the most common fracture found in up to 80% of all clavicle fracture. Conventional method or treatment of midshaft clavicle fractures is usually non surgical management, using a sling or figure - of - eight bandage. Most adults treated non surgically for midshaft clavicle fractures will heal completely. Unfortunately, based on recent studies have shown that midshaft fractures that has malunion, pain dan deformity rates may be larger number compared to those reported with conventional method. Latest evidence demonstrates that operative treatment of midshaft clavicle fractures can result in better functional status and patient satisfaction than non surgical treatment in patients meeting certain criteria. This study provides a review of relevant anatomy, systems of classification, and injury mechanisms as well as comparison of various intervention options in midshaft clavicle fractures.

METHODS:

The medical records of 60 patients treated conservatively for midclavicular fracture in Malacca General Hospital between January to December 2016 were retrospectively evaluated.



Selection criteria includes patients 18 to 70 years of age, acute fractures presented less than 10 days, both displaced and non displaced with no medical contraindications for conservative management.

Patients were separated into 2 groups, one treated with arm sling , the other treated with figure of 8 method.

Both groups consist of 30 patients which were selected through non stratified simple random sampling respectively.

Follow up of patients were done at 4 weekly intervals consecutively for 3 months.

Patients were assessed for pain over the fracture site and union of fracture.

Visual analogue scale of 1 to 10 was used to assess pain.

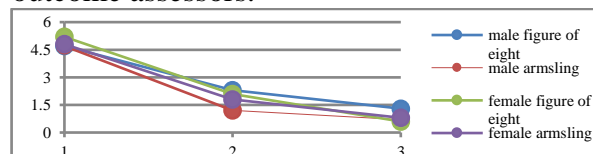
Union of fracture was assess clinically and radiographically.

RESULTS:

	Male		Female	
Figure Of Eight	12		18	
Arm Sling	17		13	
	Male		Female	
	Figure Of Eight	Armsling	Figure Of Eight	Armsling
Union	8	15	18	12
Non Union	2	1	1	1
	Male		Female	
Painscore	Figure Of Eight	Armsling	Figure Of Eight	Armsling
1st Month	4.7	4.7	5.2	4.8
2nd Month	2.3	1.2	2.1	1.8
3rd Month	1.3	0.7	0.6	0.8

DISCUSSIONS:

In conservative interventions of clavicular fractures, arm sling and figure of eight bandage have been commonly practiced. Both methods promises comparable outcomes for the fracture site and recovery of functional status for the patient . based on current literature, there is very limited evidence from trials regarding the effectiveness comparing the two methods. According to our other studies patient treated conservatively have good expectation of fracture union and satisfaction. Our study was limited by the small sample size which may have affected the results. We were also unable to blind of the participants, surgeons and outcome assessors.



CONCLUSION:

From our study, we found no significant difference between the two conservative methods of intervention in terms of percentage of union and pain . however, there is higher incidence of non union over the fracture site seen among the male gender. We suggest that both methods can be used equally in