In adults with fractures that are overlapped and shortened they are also offered surgery. We have also started to place the anatomical fractures in adolescents who want to return to sport despite the high incidence of refracture if left alone.

Children less than 12 years still rarely require surgery due to their remodelling potential and call the fracture minor.

POSTOPERATIVE MANAGEMENT

In adolescents with clavicle fractures 2. It has therefore gradually become standard orthopaedic practice to fix the majority of cases, patients were treated conservatively of fractures and it has been over the last ten years. This is not the case and over the last ten years there has been a gradual move to surgical fixation of clavicle fractures as the long term results of conservatively treated fractures have been less favourable than might have been expected. Nonunion and union is higher in conservatively treated patients and it has shown that there is an unacceptable incidence of pain and shoulder dysfunction with this form of fractures. It has therefore gradually became the idea of the operation is to make the patient as comfortable as possible by making the fracture union quicker and painless. The shoulder is best rested in a sling. The shoulder tends to sit forward and does not move apart. The shoulder is very painful for the first 3-4 weeks and sport is resumed 3-5 cm below the clavicle. Return to activity is then only possible if T to 4 weeks and the shoulder in the majority of cases does return to normal function.

SUMMARY

Conservative treatment of clavicle fractures is now generally treated aggressively by open reduction and internal fixation. The implants used and techniques have also improved. The technique can be applied through a small incision and pain and shoulder problems are also reduced. Sport is resumed 3-5 cm below the clavicle. Return to activity is then only possible if T to 4 weeks and the shoulder in the majority of cases does return to normal function.

REFERENCES

1, McClosky M.D. Noninvasive Treatment Compared with Open Reduction Internal Fixation in Acute Middle-third Clavicular Fractures. A Multicenter, Randomized Clinical Trial (JBJS, 2007;89:1-10).


In adolescents with clavicle fractures and non union.

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CONCLUSIONS

The editors and Sydney Adventist Hospital do not accept responsibility for any errors or omissions in any article in this publication.

REFERENCES

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**ENDOSCOPIC ULTRASOUND: DIAGNOSTIC AND THERAPEUTIC APPLICATIONS**

**INTRODUCTION**

Endoscopic Ultrasound (EUS) is a relatively new endoscopic imaging modality for visualising disease processes on and within the wall of the GI tract, and in adjacent organs. The Sydney Adventist Hospital has recently acquired an EUS system which will have potential impact on the management of a number of benign and malignant diseases of the upper GI tract. EUS should be regarded as complimentary to other imaging modalities such as conventional ultrasonography, CT scans, MRI and PET scans.

**INSTRUMENTATION**

There are two basic types of echoendoscopes: those with radial scanners and those with linear scanners. Radial scanners are used for EUS-guided FNAC (fine needle aspiration biopsy).

**FIGURE 1** Olympus Radial (left) and Linear (right) echoendoscopes.

- **Radial scanners** (Figure 1) provide complimentary to other imaging modalities such as conventional ultrasonography, CT, MRI and PET scans.

**EUS IN OESOPHAGAL CARCINOMA**

The imaging of oesophageal cancer is crucial to guiding further therapy, including determination of assessable disease, determining potential candidates for endoscopic therapy and determining candidates for neoadjuvant chemotherapy. EUS can determine depth of tumour invasion (1 stage – Figure 2) and nodal involvement (N stage) but is not useful for distant metastases where CT and PET scans are better.

**FIGURE 2** Endoscopic (left) and EUS (right) views of gastric carcinoma. Note hypoechoic well marginated lesion with small hypoechoic metastasis (arrowed).

**EUS IN GASTRIC MALIGNANCY**

- **1. Gastric adenocarcinomas**: EUS has also added greatly to the staging of gastric cancer, including involvement of the mucosa in such cases.

**FIGURE 3** EUS of a gastric adenocarcinoma:

- **2. Staging of gastric cancer**: EUS can determine the size of the lesion and can detect lymph node involvement in up to 90% of cases.

**EUS IN MALIGNANT PERITONEAL DISEASE**

- **1. Metastatic disease**: EUS is particularly useful in malignant peritoneal disease.

**FIGURE 4** Endoscopic ultrasound of malignant peritoneal disease, demonstrating omental and mesenteric lymph nodes.

**Pancreatic Adenocarcinoma**

- **EUS has become well established in the diagnostic work up of patients with possible or probable pancreatic malignity in one of its settings.**

**FIGURE 5** EUS of a clump of mediastinal lymph nodes (arrowed) due to sarcoidosis.

**Pancreatic Cystic Lesions**

- **Staging pancreatic cystic lesions is the primary use for EUS.**

**FIGURE 6** EUS of a clump of mediastinal lymph nodes (arrowed) due to sarcoidosis.

**New Endoscopic Imaging Modality**

Sydney Adventist Hospital has acquired an Endoscopic Ultrasound System (EUS) to evaluate and grade tumours of the oesophagus, stomach, pancreas, lungs and uterus.

**REFERRING DOCTORS TO REGISTERED NURSES**

For bookings call 9487 9066.

**MARCH 2009**

**Sah GP Conference and Public Forums**

Sydney Adventist Hospital will again be hosting free RACGP accredited conferences that can be held in Emergency Care, Cardiology, Urology, Diagnostics, Gastroenterology / General Medical, Ophthalmology. Free public forums on men and women's health will also be held. Dates to be advised.

**NEWLY ACCREDITED DOCTORS**

The SAH Board of Directors has recently approved the following doctors as Accredited Medical Officers:

- Dr Greg Carruthers - Anaesthesia
- Dr Chandi Perera - Rheumatology
- Dr Jeffrey Noy - Nephrology
- Dr Peter Wood - Obstetrics & Gynaecology
- Dr Thomas Solano - Infectious Diseases
- Dr Richard Maddigan - Emergency Care
- Dr Greg Carruthers - Anaesthesia
- Dr Chandi Perera - Rheumatology
- Dr Jeffrey Noy - Nephrology

**DAYS TO BE ADVISED.**