Open reduction and internal fixation treatment of the AO 12-A1.1 fracture using the periloc plating system

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We have prospectively reviewed the outcome at 12 months of 11 patients who have undergone open reduction and internal fixation of AO sub-type 12-A1.1 humeral shaft fractures using the PERILOC plating system. We believe no series is available in the current literature on the results with this plating system for this particular type of humeral fracture.

The perceived advantage of using this system is in the design that allows the deltoid insertion on the humerus to remain intact, where other systems require the deltoid attachment to be released in order to apply the plate to the bone, with resultant loss in shoulder abduction power particularly important for those with pre-existing rotator cuff tear.

Indications ranged from Primary trauma surgical procedures to revision procedures for humeral non-unions after non-operative and surgical treatment using IM nailing techniques. Our outcome measures included surgical complications and function at twelve months, in particular infections, non-unions, neurovascular injury and Oxford and Constant scoring at twelve months.

\[ N = 12. \]
\[ M = 7; \ F = 6. \]

Out of these cases there were no incidence of non-unions, neurovascular injury or infections. Mean Constant score after surgery was 33.8, Oxford Shoulder Score was 32. One patient required screw removal for glenoid penetration, which developed long-term pain. One patient developed a full thickness rotator cuff tear. 11 patients were pain free at twelve months.


Portsmouth trauma database—the financial advantage

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The introduction of a Trauma Database in Portsmouth has improved our coding thus increased our monthly income by £10 000 and has prevented potential losses of £100 000 per month (15% of the total income).

The funding of orthopaedic departments in the NHS is entirely dependent on accurate coding of both diagnosis and operations. The coding is carried out by specialist clinical coders who read through the notes and assign the most appropriate codes. This includes secondary and tertiary sub codes which cover co morbidities and additional surgical options undertaken at the time of the operation. The codes are then used to determine the tariff. The inclusion of co morbidities and additional procedures can make a huge difference to the final tariff. Coding deadlines of 3 weeks from patient discharge can be difficult to meet if notes are in use. The Commissioners can reduce or reject tariff charges for late coding.

In our department, 3 weeks after discharge, 15% of clinical notes were unavailable, which equated to a potential re-enumeration loss of just over £100 000 per month.

We have developed a comprehensive trauma database for our department using Microsoft Access. All diagnosis and treatment plans are entered by the junior medical staff on the day of admission prior to the morning trauma meetings. The database then saves the doctors work by automatically generating a list for the morning trauma meeting and the trauma operating list. Procedure codes are also copied onto the system by a data clerk. The system thus includes all the raw data and some codes needed for the formal coding.

Our study confirmed that the codes generated by simply using the data in the database correlated very closely with those generated by the coders accessing the full notes. Therefore we now know that if the notes are unavailable the database can be used to provide codes for previously un-coded patients. Now all patients are coded resulting in marked savings for the department. Additional benefits include smoother treatment flows for patients, indexed clinical data for research and clinical governance purposes and improved communication of patient details between clinicians.

This database could easily be adopted in most trauma departments.


Postoperative complications following open repair of complete Achilles tendon rupture performed by orthopaedic trainee surgeons

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Purpose: To retrospectively review the postoperative complications following open repair of complete Achilles tendon ruptures performed by orthopaedic trainee surgeons at a busy trauma centre.

Methods: Thirty-five open Achilles tendon repairs were performed from 1998 to 2005 by orthopaedic trainee surgeons. The data was collected from the medical records and analyzed for any postoperative complications. The standard used for comparisons were the current published evidence for postoperative complications.

Results: Twenty-nine male and six female patients with a mean age of 45 years (23–84 years) were included in this study. Twenty (57%) patients had sustained injury secondary to sporting activity, twelve (34%) patients had injury not related to sports and three (9%) patients could not recall any history of mechanism of the injury. Acute tendon rupture presented at an average of 26 h (02–120 h) post injury in twenty-eight (80%) patients whereas chronic ruptures in seven (20%) patients presented at an average of twenty-seven days (14–42 days). The procedure was performed at a mean of nineteen hours within presentation.

Thirty-two (91%) repairs were performed by Registrar grade trainee and in three (9%) cases; the Senior House Officer performed the procedure under the supervision of the senior surgeon. The average follow up for the study group was twenty-four weeks (six months). Superficial wound infection occurred in four cases (11%) which were treated by antibiotics. No deep infections or re-rupture of the Achilles tendon was identified in the follow up period.

Conclusion: The significant complication rates of open repair of Achilles tendon rupture were no different to the current evidence in literature. With careful attention to surgical technique and post-operative care, the repair of Achilles tendon rupture is an effective treatment even in the hands of junior orthopaedic trainee surgeons.