being missed from the post-take ward round and facilitated data collection for audit purposes.


Is it time to finally stop the ‘weighted’ view and start routine axial radiographs for ACJ dislocation?

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Suspected ACJ dislocation is routinely imaged using an AP radiograph and a “weighted” view radiograph. It has been shown that the weighted view can be painful, may expose patients to unnecessary radiation, and increases the cost of care, yet current guidelines still recommend it. Orthopaedic teaching is that all injuries should be imaged in two orthogonal planes. This is not achieved with AP and angled views of the ACJ.

To test the hypotheses that the “weighted view” did not alter the diagnosis and that the axial view did change the radiological diagnosis radiographs from 69 patients with suspected ACJ dislocation presenting to St George’s Hospital were randomised. Four separate radiographs were sought for each patient: A&E AP, A&E AP “weighted”, AP Delayed by 1 week, Axial.

Using a single blind methodology they were presented to two consultant orthopaedic shoulder surgeons and the injury graded.

Percentage concordance between injury grading was calculated using cross-tabulation. Correlation coefficient analysis using the Kendall’s tau test was conducted to obtain a P-value.

Results: There was no significant difference between the two surgeons analysis of the radiographs.

Acute AP v “weighted” view: no significant difference
Acute AP v delayed axial: significant difference.

Conclusions: These results suggest that we should abandon the routine use of the “weighted” AP in the A&E department as it does not alter the diagnosis and that we should replace it with the Axial view which would not only make a significant difference to the diagnosis but would also bring the imaging of this joint into line with the imaging of all other orthopaedic injuries.


Legs length discrepancy after cemented hip hemiarthroplasty

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Aim: Leg length discrepancy (LLD) is a well-known complication following hip arthroplasty. There are many papers looking at LLD after total hip replacement, however, there are none looking at LLD after hip hemiarthroplasty for fracture neck of femur. Our aim was to accurately assess leg length discrepancy following cemented hip hemiarthroplasty.

Method: Sixty consecutive patients who underwent cemented hip hemiarthroplasty for fracture neck of femur between 2008 and 2009 were selected for the study. Patient details including implant sizes, were collected from theatre records.

We used the trauma cad software to accurately calculate LLD after appropriate calibration. We measured pre- and post-operative femoral position to calculate the degree of LLD. The LLD’s were calculated by two observers to look for any inter-observer differences.

We excluded cases where the X-ray was too externally rotated, missed out the greater trochanter or no post-op X-rays were available.

Results: Sixteen cases were excluded for not meeting the inclusion criteria. In the remaining 44 patients, the mean leg length discrepancy was a 5.6 mm increase in length with a range of 5.3 mm shortening to 20.7 mm lengthening. The 95% confidence intervals was 1.8 mm above and below the mean.

Pearson’s correlation coefficient between pre- and post-operative leg length showed no significant length discrepancy with a coefficient of 0.42.

There was no significant inter-observer error.

Discussion: Many studies looking at LLD after total hip arthroplasty had a mean lengthening of 9 mm. Our study has shown that hip hemiarthroplasties have marginally better results.

However, some LLD still exists and we feel that this could have been due to the absence of pre-op templating, inaccurate femoral cut and the inability of the implant to accommodate variations in patient femoral neck angle.

We believe that correcting these issues could reduce LLD, accurately restore normal anatomy and reduce the potential complications of low back pain, nerve palsy and abnormal gait associated with LLD.

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Major trauma and transfusion in the north east of England

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Background: Haemorrhage is a common cause of death among trauma victims. Previous practice has focused on treating coagulopathy in these patients only when it has become evident from laboratory tests. This practice leads to delays in transfusion of blood components when they are indicated. In September 2007, as part of a major haemorrhage protocol, we introduced massive transfusion packs, which enable the immediate provision of packed red cells (RBCs), fresh frozen plasma and platelets in fixed proportions for the management of such patients. We report here an audit of transfusion, coagulopathy and outcome, before and after this protocol came into place.

Methods: Our hospital is one of two major trauma centres receiving cases from a population of 2.9 million. We performed a retrospective case-note study of trauma patients requiring massive transfusion between January 2004 and September 2007. From September 2007 to June 2008 the protocol was introduced with training. Once fully integrated, the same data was collected for patients admitted from July 2008 to July 2009. Massive transfusion was defined as receiving >4 units of RBCs in 1 h or replacing >50% circulating blood volume in 3 h or >10 units of RBCs in 24 h. Patients were divided into either adequately or inadequately transfused based on predetermined laboratory parameters. The primary endpoint was survival.

Results: 66 patients were identified and included in the study, 54 before and 12 after the introduction of the protocol. The commonest mechanism of injury was a road traffic collision (61%). Mortality in the first cohort was 33% (18/54 patients) and 25% (3/12 patients) in the second (p-value 0.57). Median length of stay in hospital in the first cohort was 18.5 days (range 4–46), and 16 (range 3–3.4) in the second cohort (p-value 0.549). 19 of the 54 patients (35%) in the first cohort were deemed inadequately transfused compared with 3 of the 12 patients (25%) in the second cohort (p-value 0.498). In the first cohort, being adequately transfused was associated with a significantly lower mortality (p-value 0.027), the same was not true for the second cohort (p-value 0.618). Patients in the second cohort