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EDITORIAL

Voices from the past

The couple below speak to us from across the centuries, the skull on the left from the Battle of Towton which took place in fifteenth century Yorkshire, that on the right from Margedunum in Roman Nottinghamshire. The Battle of Towton on Palm Sunday 1461 was part of the 'Wars of the Roses' and has the dubious honour of being the bloodiest battle on English soil with an estimated 28,000 fatalities. One look at the skull of the gentleman concerned leaves us in no doubt as the reason for his death as he has literally been 'pole-axed' (Figs. 1 and 2).

In 2008, I was fortunate to attend a two week Osteology and Palaeopathology Course at Bradford University, UK, where the Towton skull now resides. Specialist lectures from international experts in their field were informative, the course contained orthopaedic theory with which I was familiar but applying that knowledge to ancient human remains was a new experience. Since then I have also undertaken a human remains module at Nottingham University UK which was very 'hands on' and helped to consolidate previous learning. Although still having much to learn it did give me the opportunity to try some facial reconstruction of the Roman lady.

What became very obvious from both courses was that unless we are cremated we carry much of our orthopaedic history with us after death. As orthopaedic and trauma nurses we contribute to that history although hopefully we have few ex-patients with united fractures as extreme as the one below from The Biological Anthropology Research Centre (BARC) at Bradford University Fig. 3.

Where we do have a great part to play is in the prevention of infection. Diagnosis of infection in bone is reliant on the effects of that infection, local or systemic on the bone (Roberts and Manchester, 2007). Viral, fungal, and parasitic effects are rare, bacterial infection may be non-specific others are however pathognomic showing distinctive changes in the bone particularly tuberculosis (TB), trepenoma pallidum (syphilis), and mycobacterium leprae (leprosy).

Skeletal evidence of TB may be found in any bone but particularly the hip, knee and spine. In the latter, it is characterised by bone destruction with little new bone formation in the lower thoracic and lumbar region. Infection may also affect the lesser trochanter of the femur as it tracks down the Psoas muscle to its insertion, as Iliacus shares a common origin in the lumbar region the iliac crest may also become infected from the Psoas abscess. Differential diagnosis of spinal lesions should include Scheuermann's disease and Schmorl's nodes, from wear and tear when the intervertebral discs are worn or displaced, in addition to the effects of more generalised diseases.

Hackett (1976) described specific tuberculous lesions in the skull in addition to other disorders including syphilis, which may be helpful in differential diagnosis and should exclude signs of other systemic diseases e.g. anaemia. 'Moon's molars', with lots of bumps on the tooth surface, indicates the specific infection of trepinoma, a sign of long standing syphilitic infection.

Most of us are now unfortunately familiar with viewing the signs of infection, often Methicillin-resistant Staphylococcus aureus (MRSA), in bones and joints and even when the patient has recovered from that infection the signs of periostitis remain. In 2009, I wrote about the 'Joint revolution' of the 1970's (Knight, 2009) when so much focus was placed on removing as much risk of infection as possible before during and after joint replacement surgery. Much of that has remained; we still screen pre-operatively, our hospitals invest in expensive laminar air-flow systems yet ironically

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Fig. 1 © Cranium of Towton 9, BARC, Archaeological Sciences, University of Bradford.

in a District General Hospital setting our patients may return to a less than perfect post-operative environment.

In Britain the perpetual call for NHS efficiency sometimes results in orthopaedic patients being cared for on a non-specialist ward amongst already infected patients or crammed into old 'Nightingale' style wards with few hand-wash basins. In some cases this may prove to be far from cost effective as expensive post-operative, sometimes antibiotic resistant, infections result. Perhaps our politicians and managers could benefit from some instruction in human remains, but perhaps we should also be more vocal in expressing our concerns.

Fig. 2 Skull from Margedunum (authors own photograph).

To return to our Roman lady she too has a tale to tell although her skull holds fewer clues. The face was built up using the 'old-fashioned' anatomical method of building soft tissues to a known depth on bony landmarks of the face as described by Richard Neave in Cox and Mays (2000 pp. 325—333) Fig. 4. A plaster cast had previously been prepared of the anterior aspect of the skull and soft tissue

Fig. 3 Picture of unprovenanced femur, courtesy of Dr. Jo Buckberry.