

Published Work: Limb Reconstruction Team

Sheehy SH, Atkins BA, Bejon P, Byren I, Wyllie D, Athanasou NA, Berendt AR, McNally MA. (2010) [The Microbiology of Chronic Osteomyelitis: Prevalence of resistance to common empirical anti-microbial regimens](#) *Journal Infect* Mar 1 (Epub ahead of print)

This study describes the microbiological spectrum of chronic Osteomyelitis and so guides the choice of empirical antibiotics for this condition. **METHODS:** We performed a prospective review of a 166 prospective patient series of chronic Osteomyelitis from Oxford, UK in which a standardised surgical sampling protocol was used. **RESULTS:** Staphylococcus aureus was most commonly isolated (32%) amongst a wide range of organisms including gram negative bacilli, anaerobes and coagulase negative staphylococci. Low grade pathogens were not confined to patients with a history of metal work, a high proportion of cases were polymicrobial (29%) and culture negative cases were common (28%). No clear predictors of causative organism could be established. Many isolated were found to be resistant to commonly used empirical anti-microbial regimens. **CONCLUSIONS:** The wide range of causative organisms and degree of resistance to commonly used antimicrobials supports the importance of extensive intra-operative sampling and provides important information to guide clinicians choice of empirical antibiotics.

Matthews, PC., Berendt, AR., McNally, MA., Byron, I.
Clinical Review: Diagnosis and management of prosthetic joint infection
BMJ 2009; 338: doi:10.1136/bmj.b1773 (Published 29 May 2009)

Sivan M, Bose D, Athanasou N, McNally M (2008) Mycobacterium marinum Osteomyelitis of a long bone *Journal Bone Spine* Oct;75(5): 600-2. Epub 2008 May 1.

Mycobacterium marinum can uncommonly cause Osteomyelitis of small bones of extremities. The reported cases in literature are reviewed. We report a rare case of long bone Osteomyelitis which as far as we are aware, has never been described before. Even though this organism normally causes infection in the superficial cooler regions of the body, clinicians should be aware of the possibility of long bone Osteomyelitis in patients with a history of immune compromise and the appropriate treatment strategy in such cases.

McNally MA (2007) Insufficient duration of venous thromboembolism prophylaxis after total hip or knee replacement when compared with the time

course of thromboembolic events ***Journal Bone Joint Surgery Br*** Oct; 89(10):1409-10

Bose D, Hauptfleisch J, McNally M. (2006) Delayed pseudoaneurysm caused by distal locking screw of a femoral intramedullary nail: a case report ***Journal Orthopaedic Trauma*** Sep;20(8):584-6

Interlocked intramedullary nailing is an accepted technique in the management of closed femoral shaft fractures. If this technique is used in patients who are skeletally immature, the position of locking screws relative to soft tissues can alter with time. We present a case of an 11-year old male who developed a delayed pseudoaneurysm 4 years after intramedullary nailing that was most likely produced by movement of the distal locking screws of his femoral nail in relation to the surrounding vascular structures.

Sinha S, Sinha A, Nagarajah K, Oei EL, Critchley P, McNally MA. (2006) Chronic sternal osteomyelitis complicating primary manubriosternal septic arthritis ***Clinical Rheumatology*** Nov; 25(6): 934-6 Epub 2006 Mar 23

We present a 40-year old woman complaining of worsening chest pain. She was previously treated with a prolonged course of antibiotics for suspected sternal Osteomyelitis. Radiological investigations were suggestive of ongoing inflammation within the manubriosternal joint. Formal surgical debridement yielded evidence corroborating the diagnosis although microbiological samples were negative. Prolonged empirical treatment with intravenous antibiotics leads to a complete resolution of symptoms. Primary culture-negative manubriosternal septic arthritis is rare, and suboptimal treatment, particularly if confused with other conditions such as synovitis, acne, pustulosis, hyperostosis and osteitis (SAPHO) syndrome, compounds its considerable morbidity.

Nagarajah K, Aslam N, McLardy Smith P, McNally M. (2005) Iliofemoral distraction and hip reconstruction for the sequelae of a septic dislocated hip with chronic femoral Osteomyelitis. ***Journal Bone Joint Surgery Br*** Jun; 87(6): 863-6

We describe a technique of “cross-hip distraction” to reduce a dislocated hip with subsequent reconstruction of the joint for septic arthritis with extensive femoral Osteomyelitis. A 27-year old woman presented with a dislocated, collapsed femoral head and chronic Osteomyelitis of the femur. Examination revealed a leg-length discrepancy of 7cm and an irritable hip. A staged technique was used with primary clearance of Osteomyelitis and secondary reconstruction of the hip. A cross-hip monolateral external fixator was used to establish normal anatomy followed by an arthroplasty. A good functional

outcome was achieved. The use of cross-hip distraction avoids soft-tissue and nerve damage and achieved improved abductor function before arthroplasty.

Sinclair JS, McNally MA, Small JO, Yeates HA. (1997) Primary free-flap cover of open tibial fractures *Injury* Nov-Dec; 28(9-10):581-7

Seventeen consecutive patients with Grade IIIB open tibial fractures had definitive treatment of both the fracture and soft tissues performed within 72 h of injury. Free tissue transfer was used for cover in each case. There were no cases of deep infection. Flap survival was 100 per cent. The mean time to fracture healing was 10 months, and mean time to walking unaided was 12 months. The average length of stay in hospital was 82 days. The findings suggest that immediate radical debridement followed by adequate soft tissue cover is a safe and effective method for treating these severe injuries.

Sutherland MA.(1997) A team approach to wound care in pyoderma gangrenosum. *Journal of Wound Care* 6; 4: 161-64

McNally, MA., Bahadur, RAJ., Cooke, EA., Mollan, RAB.
Venous Haemodynamics in both legs after total knee replacement
Journal of Bone and Joint Surgery Br 1997; 79-B: 633-7

Sutherland MA, (1995) Wound healing problems in haemophilia.
Journal of Wound Care. 4: 4, 166-168.

MA McNally, EA Cooke, and RA Mollan
Femoral vein blood flow during THR
Journal of Bone and Joint Surgery Br. Mar 1995; 77-B: 335-336

McNally MA, Small JO, Tofighi HG, Mollan RA. (1993) Two-stage management of chronic Osteomyelitis of the long bones. The Belfast Technique. *Journal Bone Joint Surgery Br* May;75(3):375-80

We treated 37 patients with chronic Osteomyelitis of the tibia (25), femur (9), radius (2) and humerus (1) by a two-stage technique, comprising radical debridement of all infected bone and soft tissue with the provision of soft-tissue cover, and delayed autogenous bone grafting when necessary. All patients were reviewed at an average of 49 months (12 to 121). Infection-free bone union was achieved in 34. No patient required amputation. Wide excision of all compromised tissue and the closure of bone within a healthy vascularised soft-tissue envelope are essential if infection is to be eradicated. The combined assessment and management of such patients by an orthopaedic surgeon and a plastic surgeon are advocated.

MA McNally

Thrombosis and embolism after knee arthroplasty

Journal of Bone and Joint Surgery Br, Ma 1993; 75-B: 507-508

McNally, MA., Mollan, AB.

Total hip replacement, lower limb blood flow and venous thrombogenesis

Journal of Bone and Joint Surgery Br 1993; 75-B: 640-4

The effect of Charnley cemented total hip replacement on venous blood flow in the legs and its relationship to deep vein thrombosis were investigated in 413 patients. Blood flow was measured using strain-gauge plethysmography before operation, after surgery, and after discharge from hospital. There was a significant reduction in both venous capacitance and venous outflow, affecting both legs but greater in the operated leg. Venous flow remained significantly below preoperative levels in the operated leg six weeks after surgery.

There was a highly significant correlation between the degree of reduction in blood flow and the development of postoperative deep-vein thrombosis. Venous stasis was shown to be a major factor in venous thrombogenesis