

Free Papers D

[O69] THE MYTH OF SURGICAL STERILITY: BACTERIAL CONTAMINATION OF KNEE ARTHROPLASTY DRAPES

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Aim: The majority of peri-prosthetic joint infection occurring within 1 year of surgery is due to introduction of microbes at the time of surgery. Lavage of total knee replacement leaves a pool of fluid on the surgical drapes. This fluid could be a direct source of wound contamination via suction catheter tip, gloves or instruments.

Method: Twenty patients undergoing total knee arthroplasty had a sample of drape fluid sent, after prosthesis implantation, for standard and enrichment culture. The surgery took place in a laminar low theatre with scrub teams in togas* and drapes**. Normal saline was used as the wash. 20ml fluid was taken via syringe and transferred to blood culture bottles in theatre post-operatively.

Results: Ten samples (50%) showed bacterial contamination, of these 55% were one organism and 45% polymicrobial. Coagulase negative staphylococcus (CNS) occurred in 90% of positive samples, followed by moraxella (20%) and MSSA (10%). Organisms grown included skin, nasal, respiratory and environmental pathogens, all but one previously documented as causing septic arthritis.

Conclusions: The major contaminant found in our study, CNS, is a skin commensal. This could be from increasing resistance to skin preparations or a decline in theatre etiquette. Fluid collecting in the drapes is a source of potential contamination. All aspects of infection control protocol need continual re-assessment including drape quality, skin and patient preparation and theatre etiquette. Surgeons cannot assume that routine skin preparation and peri-operative antibiotics will eradicate bacterial contamination. It is all our responsibility to implement best infection control practice both in the operating room and through entire patient journey.

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