THE SURVEILLANCE OF SURGICAL SITE INFECTION AFTER PRIMARY TOTAL KNEE REPLACEMENT FROM 1993 TO 2013

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INTRODUCTION: Surgical site infection (SSI) is still the most common complication after primary total knee replacement. The surveillance of SSI after total joint replacement helps to audit the infection rate, identifies risk factors, provides trend of bacteriology. This study aims at reporting the 20-year SSI after primary total knee replacement.

MATERIALS AND METHODS: Based on the database from infection control and registry of the division, the incidence of 90-day, 1-year and delayed SSI were reported. The risk factors and pathogens were identified.

RESULTS: From 1993 to 2013, 2556 primary total knee replacement surgeries were performed. The 90-day and 1-year SSI were 0.7% (17 cases) and 0.9% (26 cases) respectively. Nine cases (0.4%) had delayed infection up to 12 year after surgery. The relative risk of diabetes mellitus and rheumatoid arthritis were 1.4 and 2.4 respectively. Methicillin Sensitive Staphylococcus Aureus and Methicillin Resistant Staphylococcus Aureus were the commonest pathogen in early infection while Methicillin Resistant Coagulase Negative Staphylococcus was the commonest pathogen for late infection.

DISCUSSION AND CONCLUSION: Diabetes mellitus and rheumatoid arthritis are the two most important risk factors. Based on the risk factors and pathogens, preventive measures should be adopted in selective group of patients to reduce the risk of SSI.