OUTCOME OF MICROBIOLOGICALLY CULTURE POSITIVE ARTHROPLASTY INFECTIONS

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ABSTRACT

TITLE: Outcome of microbiologically Culture proven arthroplasty infections.

AIM: To investigate the cause and outcome of infected arthroplasties

OBJECTIVES: To identify culture positive cases of infected arthroplasties and compare the changing trend in organisms causing infections between two cohorts to prospectively assess outcome in patients with infected arthroplasties.

METHODS: This is a prospective follow up of two retrospective cohorts (1.1.2007 – 31.12.2009 and 1.1.2012-31.12.2012) of all patients who suffered from culture proven arthroplasty infections presenting to a tertiary center. The international consensus group criteria put forth in 2014 was used to identify patients for the study. The final outcome of the prosthesis and the current functional outcome of patients were assessed.

RESULTS: The prosthesis survival rate of PJI was 37.5% and a failure rate of 62.5%. Among the failures, 8.3% underwent one stage revision, 29.2% underwent two stage revision, 12.5% underwent resection arthroplasty, 4.2% underwent amputation and death occurred in 8.3%. There was an increase in ESBL infections in the second cohort with poor prosthesis and functional outcome.

CONCLUSION: There was an increase in infection by organisms of higher virulence like ESBL. Organisms of higher virulence like MRSA and ESBL led to worse
outcomes with infections caused by ESBL having the poorest prosthesis and functional outcome.

KEYWORDS: Prosthetic joint infection, One stage revision, Two stage revision, Resection arthroplasty, Methicillin resistant Staphylococcus aureus, Extended spectrum Beta lactamase.