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DO DIABETIC PATIENTS HAVE AN INCREASED RISK OF DEEP SURGICAL INFECTION AFTER TOTAL KNEE REPLACEMENT?

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INTRODUCTION: Diabetes mellitus has been linked to an increase risk of surgical site infection (SSI). Deep SSI after total knee replacement (TKR) is the most devastating complication, which often requires repeated operations and prolongs hospital stay. This study aimed at evaluating the effect of diabetes mellitus on rate of deep SSI after primary TKR.

MATERIAL AND METHODS: All primary TKRs done in QMH from 2009 to 2013 were reviewed. Deep SSI is defined as positive culture identified below fascia or joint capsule, and classified according to Tsukayama classification. Rate of deep SSI between non-diabetes and diabetes were compared. Preoperative HbA1c% was used as an index of diabetic control.

RESULTS: Total of 1328 primary TKR were performed with 241 (18.1%) on diabetic patients within the study period. 14 cases of deep SSI with an overall deep SSI rate 1.05% (2 diabetic vs 12 non-diabetes). 3 were Tsukayama Type 2, while 11 were Type 4. Non-diabetic and diabetic deep SSI rate was 1.1% and 0.83% respectively, with no significant difference (p value 0.39). Mean preoperative HbA1c% was 7.4 (SD 1.1, range 5.1-13).

CONCLUSION: No difference in deep SSI between diabetic and non-diabetic patients was found in this study. One of the postulated reasons might be due to the relative good glucose control in our diabetes patient, as evidenced by HbA1c%.