

TITLE: The management of diabetic patients undergoing knee arthroplasty

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INTRODUCTION:

Diabetes mellitus a significant risk factor for patients undergoing knee arthroplasty^{1,2}. Previous work revealed that peri-operative mortality in diabetic patients is greater than in non-diabetics and that suboptimal glycaemic control is associated with poor peri-operative outcomes³. A retrospective study was performed to assess the management of diabetic patients undergoing knee arthroplasty in relation to national guidelines.

METHODS:

This was a retrospective case note review. 50 diabetic patients were identified over a one year period from July 2010 until June 2011. The patients' notes were examined to see to what extent the peri-operative management of the patients was compliant with the standards set down in the NHS Diabetes document. The adequacy of the general practice referral letters was assessed and it was noted whether the information which the NHS Diabetes document states should be included was given and whether the HbA1c was checked within 3 months prior to referral and -if elevated- was acted upon at pre-op assessment.

Blood glucose measurements during the inpatient stay and any post-operative complications were recorded. The length of stay for all patients having a total knee arthroplasty was recorded, and differences between those with and without diabetes analysed.

RESULTS:

Of the 50 included patients, 33 patients were male; 17 female, with a mean age of 72 years. 13 patients were taking insulin; the remainder were diet controlled or on oral antihyperglycaemic drugs. 42 patients underwent total, 5 uni-compartmental, 1 patello-femoral and 2 revision knee replacements.

Primary care referrals were found to be inadequate, with none fully complying with national guidelines. Only 72% of patients had an HbA1C checked prior to surgery and of those patients with elevated levels (19 of 30), none were referred for further treatment.

The average length of hospital stay was not different between groups, however 36 patients with diabetes had a least one documented hyperglycaemic episode, 4 at least one hypoglycaemic episode and 6 patients had wound infections post-operatively.

CONCLUSION(S):

Recently published UK guidelines have laid out the standards of peri-operative care for patients with diabetes⁴ but compliance is suboptimal. Because an increasing number of patients with diabetes will undergo surgery in future⁵, it is important that these nationally agreed standards of care are adhered to. Adequate diabetic management is important to optimize outcome following knee replacement and improvements have to be made to achieve this aim.

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