QUESTION 8: Does a patient with a colostomy have an increased risk for surgical site infection/periprosthetic joint infection (SSI/PJI)?

RECOMMENDATION: There is currently no evidence in the literature to determine if a patient with a colostomy is at an increased risk for SSI/PJIs following an arthroplasty procedure. However, it is our recommendation to ensure that the patient has a leak-free and clean colostomy in place to prevent soiling.

LEVEL OF EVIDENCE: Limited

DELEGATE VOTE: Agree: 94%, Disagree: 4%, Abstain: 2% (Super Majority, Strong Consensus)

RATIONALE

There are several risks factors associated with SSIs or PJIs such as body mass index (BMI), diabetes mellitus (DM), rheumatoid arthritis (RA), depression, chronic corticosteroid use, hypoalbuminemia and previous joint surgery [1–4]. Furthermore, other risk factors are reported to be correlated but not significantly associated with PJIs. These include cirrhosis, hypothyroidism, urinary tract infection, illicit drug and alcohol abuse, dementia, hypercholesterolemia, hypertension, ischemic heart disease, peptic ulcer disease as well as hemiplegia or paraplegia [4].

Colostomy is a surgical procedure diverting a part of the colon to an artificial opening in the anterior abdominal wall. It may be performed for emergency or elective surgical conditions for the management of a wide range of congenital and acquired conditions, as well as for benign or malignant gastrointestinal conditions for two main purposes: diversion or decompression of the colon [5,6]. Although it is a lifesaving procedure, both its construction and reversal have high morbidity and mortality [7,8]. Surgical site infection after colostomy is reported to be one of its major complications [5].

Correlation between bowel diseases and procedures in infection in the hip joint has been reported. Colon-articular fistulas involving the hip have been reported in patients with inflammatory bowel disease [9], diverticular disease [10] and bowel carcinoma [11]. In addition, solitary case reports have described fistula formation following total hip arthroplasty [12] or Girdlestone resection arthroplasty [13]. Coelho-Prabhu et al. [14], in a prospective, single-center, case-control study, demonstrated that esophagogastroduodenoscopy with biopsy was correlated with increased risk (odds ratio (OR) = 3, 95%, confidence interval (CI) 1.1 to 7) of PJI in arthroplasty patients.

There is no publication on the subject of colostomy and the potential risk for SSI/PJI following arthroplasty. The data available suggest that SSI around the abdomen are risk factors associated with colostomy. By way of speculation, we feel that a patient with a colostomy, who has developed a SSI, would be at risk for developing a PJI after elective arthroplasty. Thus, it is justified to propose that elective arthroplasty should be delayed in patients with an active infection around the colostomy. Furthermore, it must be ensured that patients have a clean, leak-free and properly functioning colostomy in place prior to elective arthroplasty. Consideration may be given to waiting until a temporary colostomy is reversed before proceeding with an elective arthroplasty.

REFERENCES


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