

APPENDICECTOMY - KNOWING THE BUG MAKES A DIFFERENCE

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Aim of study: *Streptococcus anginosus* group (SA)(formerly *Streptococcus milleri*) are widely recognised pathogens with a high risk for post-operative collection in appendicitis, however a paucity of literature exists in paediatrics. We noted an increase in postoperative collections following appendicectomy. We reviewed all patients who underwent appendicectomy to assess the rate of intraoperative SA isolation and post-operative collection.

Methods: Retrospective case note review of patients admitted to a paediatric tertiary centre coded for appendicitis from 01/01/2015 to 31/10/2016. Data was collected on length of stay (LOS), intraoperative findings, microbiology results and radiology reports. Postoperative antibiotic regime was based on surgeon's choice (not standardised).

Main results: 237 paediatric patients with perforated (40.1%) and non-perforated appendicitis (50.6%) were identified, 19 were excluded for incorrect coding. Of the 219 patients included, 179 had positive microbiology cultures (81.7%); 44 included SA (25%). All SA cultures were sensitive to Penicillin and Erythromycin. In October 2016 SA was isolated in 58% of appendicitis patients compared to only 25% baseline in the study period (figure1). Median LOS for all patients with appendicitis was 5days but significantly longer for those with SA at 7.5days ($p<0,01$). Relative risk of developing a post appendicectomy collection for SA patients was 4.13. The median LOS for all patients with post appendicectomy collection was 12 days, for SA collections 11 days. 30% of patients with postoperative collections required surgical or radiological intervention (no significant difference between SA and non-SA collections).

Conclusion: Intraoperative serosal swabs of the appendix provide clinically relevant information. The presence of SA in appendicitis increases the LOS by 2.5days and increases the risk of developing a postoperative collection. The increased incidence rate of SA in paediatric appendicitis during the study period is unclear. Standardisation of management for patients where SA is isolated may reduce the incidence of postoperative collection.

Figure 1

