

European Respiratory Society Annual Congress 2012

Abstract Number: 3822

Publication Number: P2942

Abstract Group: 8.1. Thoracic Surgery

Keyword 1: Airway management **Keyword 2:** Bacteria **Keyword 3:** Surgery

Title: Does bacterial colonisation potentiate granulation tissue formation post endobronchial stenting?

Mr. Dinesh 22463 Krishnamoorthy kdinesh60@gmail.com¹ and Prof. Brendan 22464 Madden
Brendan.Madden@stgeorges.nhs.uk MD^{1,2}. ¹ Medical School, St. Georges University of London, London,
United Kingdom, SW17 0RE and ² Cardiothoracic Surgery, St. Georges Hospital, London, United Kingdom,
SW17 0RE .

Body: Background Following endobronchial stent insertion granulation tissue formation may occur, which can occlude the airway. It has been postulated that bacterial colonisation causes granulation tissue formation and its subsequent proliferation. Aim To study whether specific microorganisms are associated with granulation tissue formation in patients post endobronchial stent deployment. Methods We conducted a retrospective review of all endobronchial stent insertions performed for benign conditions between January 2005- November 2011. Stents used in the procedure were covered and uncovered Ultraflex expandable metallic stents(Micro-invasive, Boston Scientific, Watertown, MA). Follow up bronchoscopies determined which patients had developed granulation tissue formation. Biopsies, sputum and lavage were then taken for microbiological analysis. Microsoft excel was used to collect and analyse data. Results Thirty patients had endobronchial stents deployed. Ten patients developed granulation tissue proliferation and all of these had bacterial colonisation of the stent with at least one pathogen. A total of 11 different pathogens were found; Staphylococcus aureus (6), Alpha haemolytic streptococci (5), Pseudomonas aeruginosa (3), Haemophilus influenza (2), Coagulase negative staphylococcus (2), Moraxella catarrhalis (1), Non haemolytic streptococcus (2), MRSA (1), Neisseria (1), Coliform (1), Corynebacterium striatum (1). Conclusion Prophylactic control in the form of antibiotic-impregnated stents and nebulised antibiotics post stent deployment targeting specific microorganisms may be beneficial in reducing granulation tissue formation.