

Gram-Negatives Dominate Early Infections After Artificial Urinary Sphincter Surgery

Landen L¹, Semal A¹, Van der Aa F¹

UZ Leuven¹

www.ics-eus.org/2025/abstract/518



INTRODUCTION

- The AUS is the standard treatment for moderate-to-severe SUI in men
- Overall infection and/or erosion rates are ~8.5%, usually within 2 years
- Early infection (< 3 months) may result from perioperative contamination or urethral trauma, and therefore represents a valuable parameter to evaluate perioperative quality and prophylactic strategies
- Limited data exist on early infection rates and their causative microorganisms
- Previous reports describe Staphylococcus species as predominant in clinical infections and in bacterial colonization during AUS revision surgery for non-infectious indications
- The aim of this study was to identify microorganisms in early AUS infections at our center to guide prophylaxis strategies

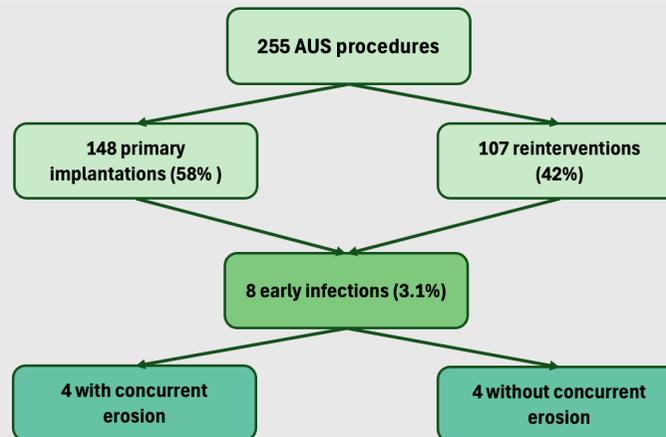


METHODS

- Retrospective single-center study of consecutive AUS procedures in male patients with SUI between October 2016 and October 2023

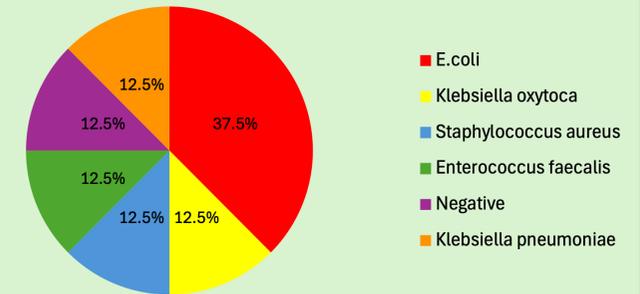


RESULTS



- Out of 255 procedures, 148 were primary implantations and 107 were reinterventions
- 8 early infections (3.1%) occurred, of which 4 presented with concurrent urethral erosion
- Early infections were equally distributed between primary implantations and reinterventions
- Cultured microorganisms were predominantly gram-negative, with Escherichia coli being the most frequent in 3 cases (37.5%)

Organisms isolated from early AUS infections (n=8)



CONCLUSION

- Low early infection rate of 3.1%
- Half of the early infections occurred without erosion, although this is generally considered uncommon
- Escherichia coli was the most frequently isolated pathogen, while Staphylococcus aureus was isolated only once, contrasting with the limited available data
- The predominance of gram-negative pathogens may reflect the effectiveness of our skin preparation protocol in preventing gram-positive infections
- These findings highlight the need for perioperative prophylaxis strategies tailored to institutional microbial profiles