There's Something In The Water

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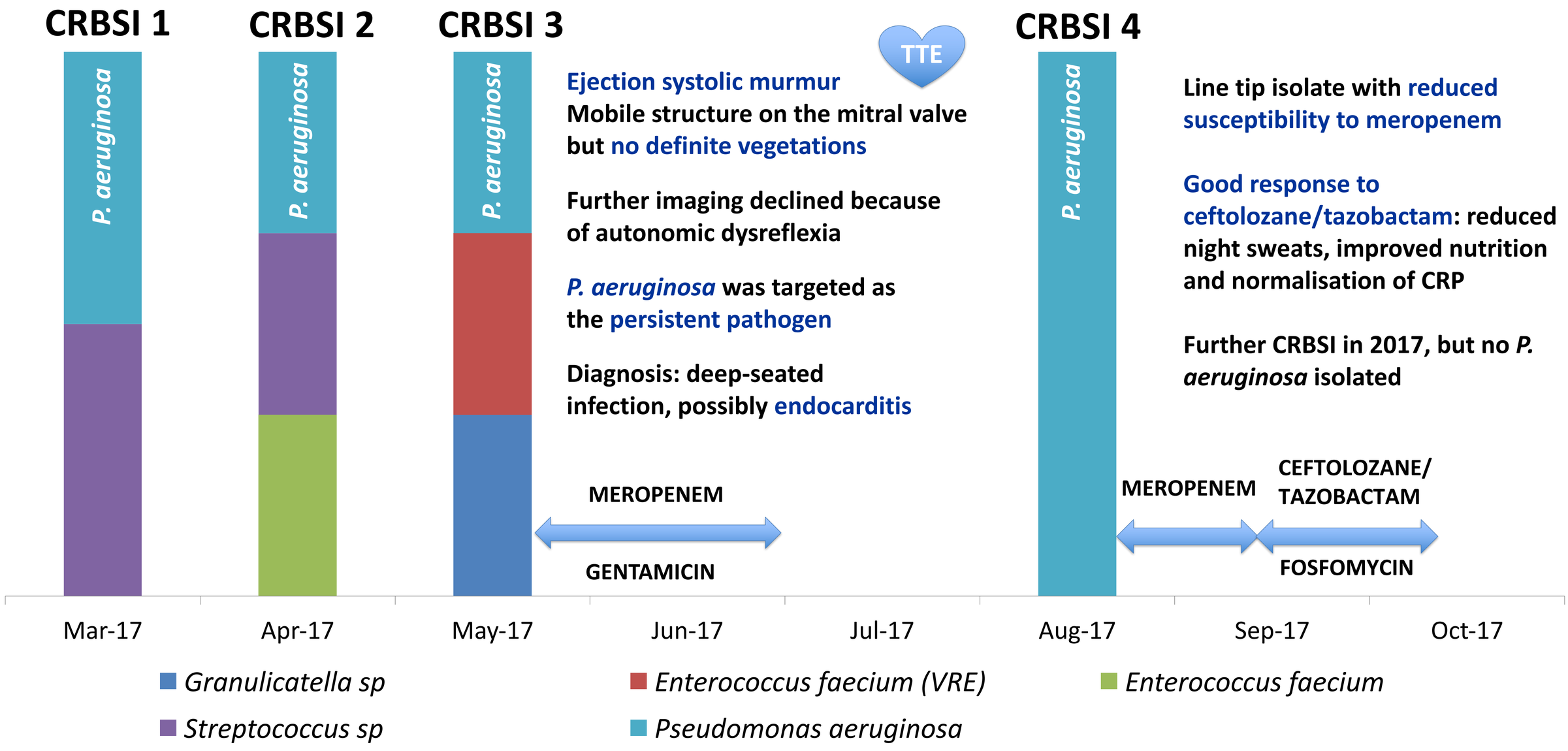
Introduction

A case of a recurrent multi-drug resistant (MDR) *Pseudomonas aeruginosa intravascular* catheter-related bloodstream infections (CRBSI) treated with ceftolozane/tazobactam in combination with fosfomycin



Key Learning Points

CRBSI can 1) co-exist with deep-seated foci of infection and 2) cause deep-seated foci of infection

MDR *P. aeruginosa* can be challenging to treat; ceftolozane/tazobactam is a new cephalosporin/beta lactamase inhibitor combination with antipseudomonal activity, that was effective in this case.

In the presence of a persistent unexplained pathogen, consider the possibility of environmental sources

A multidisciplinary approach is essential for managing complex, challenging cases

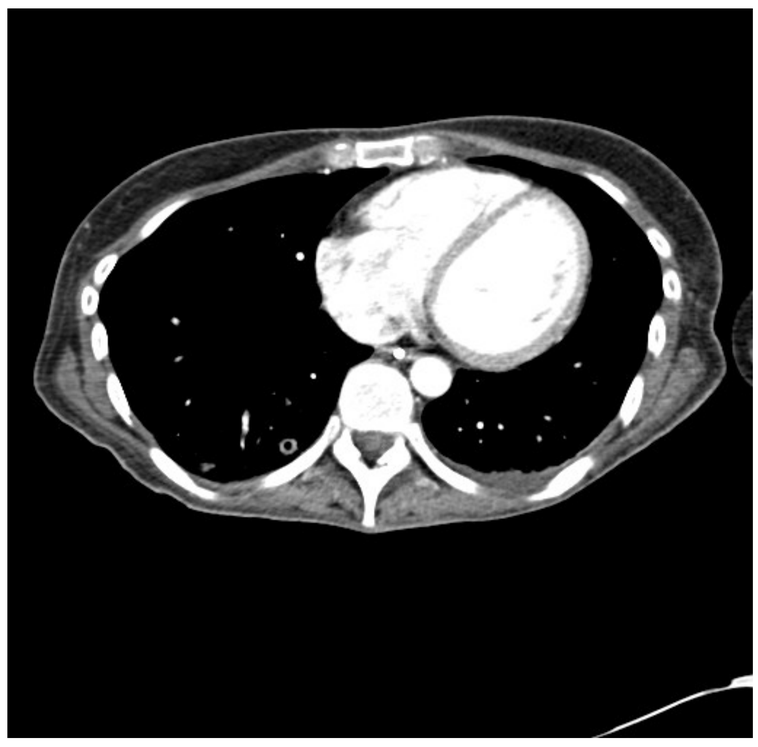


Figure. CT Thorax: multiple pulmonary lesions suspicious for emboli

Water Testing

***P. aeruginosa* was isolated from water in the side room and filters were applied.**

Water isolates were indistinguishable from he clinical *P. aeruginosa* strains so water testing of the ward has now been arranged.

Conclusion

The choice of effective antimicrobials against MDR *P. aeruginosa* is often limited, necessitating the use of novel agents such as ceftolozane/tazobactam[1] where clinical experience is limited. Determining if water is a source of *P. aeruginosa* infection or has become contaminated from the patient is a challenge

References:

1.Sader HS, Farrell DJ, Castanheira M, Flamm RK, Jones RN. Antimicrobial activity of ceftolozane/tazobactam tested against Pseudomonas aeruginosa and Enterobacteriaceae with various resistance patterns isolated in European hospitals (2011-12). *J Antimicrob Chemother* 2014; **69**(10): 2713-22.

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