A Case of Failed Eradication of Cystic Fibrosis-Related Sinus Colonisation by *Pseudomonas aeruginosa*

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ABSTRACT

Pseudomonas aeruginosa is a pathogen associated with cystic fibrosis that has potential to decrease lung function and cause respiratory failure. Paranasal sinuses are increasingly recognised as potential reservoirs for intermittent colonisation by *P. aeruginosa*.

This case documents investigation and outcome of *P. aeruginosa* recurrence in a male paediatric patient over an eight year period.

A 12 year old Irish male paediatric cystic fibrosis patient experienced intermittent culturing of *P. aeruginosa* from the oropharyngeal region, indicating chronic infection of the sinuses despite absence of symptoms, retaining good lung function, and normal bronchoscopy and bronchoalveolar lavage.

However, *P. aeruginosa* was isolated from a sinus washout and was identified as a unique strain of *P. aeruginosa* that was also cultured from cough swabs. Despite treatment, successful eradication from the paranasal sinuses was not achieved.

Few reports have addressed the paranasal sinuses as a reservoir for lung infection in cystic fibrosis patients despite increased recognition of the need to investigate this niche. In this case, attempts at eradication of *P. aeruginosa* present in paranasal sinuses including oral and nebulised antimicrobials proved unsuccessful. However, detection of *P. aeruginosa* in the paranasal sinuses instigated antimicrobial treatment which may have contributed to prevention of migration to the lower airways. Our outcome provides additional insight and may indicate utility of nasal lavage or nasal endoscopy in paediatric cystic fibrosis patients' annual review clinic visits.

SOURCE

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