

Correspondence

Measurement of effective pulmonary blood flow by soluble gas uptake

SIR,—I was interested to read the article by Dr RJ Pierce and others (August 1987;42:604–14). In their description of the methods the authors perpetuate a few misconceptions which commonly appear in papers about the inert gas method of estimating pulmonary blood flow.

The method of Cander and Foster¹ was not originally describing a rebreathing technique; several single breath holding estimates of the uptake of a soluble gas were made to characterise the slope of the uptake of a soluble gas with respect to time, to take into account pulmonary tissue volume, and to determine its magnitude. This in turn was modified on the basis of the work of Krogh and Lindhard.² Of the work quoted by the authors, that of Sackner *et al*³ was the first to use a rebreathing technique, their calculations being based on the principles described by Cander and Foster.

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- 2 Krogh A, Lindhard J. Measurements of the blood flow through the lungs in man. *Scand Arch Physiol* 1912;27:100–25.
- 3 Sackner MA, Greenelch D, Heimann MS, Epstein S, Atkins N. Diffusing capacity, membrane diffusing capacity, capillary blood volume, pulmonary tissue volume and cardiac output measured by a rebreathing technique. *Am Rev Respir Dis* 1975;111:157–65.

Intrathoracic infections due to *Eikenella corrodens*

SIR,—I read with interest the report by Dr S Javaheri and others on intrathoracic *Eikenella corrodens* infection (September 1987;42:700–1), having recently managed a patient with an empyema due to this unusual organism. Dr Javaheri and his colleagues are incorrect, however, in their statement that *E corrodens* has been isolated from the respiratory tract only in the presence of other organisms.

Kaplan *et al*¹ described a 6 month old child with an empyema from which only *E corrodens* was isolated; St John *et al*² reported an 11 year old boy with cerebral palsy who also presented with a large empyema due to *E corrodens*; and Suwanagool *et al*³ described the development of an *E corrodens* empyema in a 67 year old man who, like patient 3 discussed by Dr Javaheri and colleagues, had had a squamous cell carcinoma resected.

Of greater interest is the isolation of *E corrodens* from blood cultures in two patients (but described only in the case report for patient 1). This slow growing, fastidious bacterium has been isolated from blood cultures on 10 previous occasions—after dental extraction (three times), in patients with neoplasia (four times), and from patients with valvular heart disease (three times).³

Reports of pulmonary infections due to *E corrodens* are uncommon, probably owing to the combination of previous antibiotic treatment, as it is sensitive to most β lactam antibiotics, and its slow growth on culture medium.

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- 1 Kaplan MJ, McCracken HG, Nelson DT. Infection in children caused by HB group of bacteria. *J Pediatr* 1973;82:398–403.
- 2 St John MA, Belda AA, Matlow A, Prober CG. *Eikenella corrodens* empyema in children. *Am J Dis Child* 1981;135:415–7.
- 3 Suwanagool S, Rothkopf MM, Smith SM, LeBlanc D, Eng R. Pathogenicity of *Eikenella corrodens* in humans. *Arch Intern Med* 1983;143:2265–8.

***This letter was sent to the authors, who reply below.

SIR,—We thank Dr Allen for his interest and for the references, particular the paper by Suwanagool and colleagues, who report in detail an adult with *Eikenella corrodens* empyema, the subject of our paper.

Bacteraemia was in fact present in only one of our patients, as detailed in the case report; the reference to two patients in the discussion was a mistake.

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