SHORT COMMUNICATIONS

A Note on the Occurrence of Core-like Structures in Association with *Erysipelothrix rhusiopathiae*

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Abrams, Nielson & Thaemert (1964) and Cohen, McCandless, Kalmanson & Guze (1968) have reported core-like structures, occurring in transitional and protoplast forms of *Streptococcus faecalis*. These were 0.08 to 0.13 μm thick, and consisted of a variably electron-dense tube containing ribosome-like particles.

A recent paper by McCandless *et al.* (1971) suggests that these cores are specific for group D streptococci, but similar core-like structures occur in cultures of *Erysipelothrix*

Fig. 1. *Erysipelothrix rhusiopathiae* NCTC 807, showing core-like structure with surrounding double layer. Scale marker represents 0.3 μm .

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rhusiopathiae (NCTC strains 807 and 8163) cultured on (g/l): tryptone, 10; Lab Lemco bee extract, 3; blood agar base no. 2, 40, pH 7·2; and incubated at 37 °C for 5 days. Organisms were harvested by centrifuging at 15000 g for 30 min, washed thrice with distilled water, resuspended in 10 % iso-propanol, and dried on collodion on formvar membranes.

Electron microscopical examination revealed the presence of core-like structures 0·3 to 0·4 μ m long and 0·05 to 0·075 μ m wide, in the older cultures, especially in strains showing dissociation and associated L-form bodies; Fig. 1 shows the typical appearance of the structures, which consisted of flat-ended cylinders based upon a central core around which could often be detected a uniformly constructed double layer; always lying along the long axis of the organism and frequently giving the appearance of being intimately attached to the cell wall.

Although rather smaller, these core-like structures resemble those found in *Streptococcus faecalis*. Both Davis, Fomin, Wilson & Newton (1969) and Stuart & Pease (1972), on the basis of numerical analysis of data, have shown that *Erysipelothrix rhusiopathiae* has close phenotypical relations to the streptococci, of which this may be further evidence.

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