A NEW SALMONELLA SEROTYPE,
SALMONELLA FREETOWN (38 : y : 1, 5)

J.D. Reid
Government Laboratory, Freetown, Sierra Leone
and
J. Stitt and Joan Taylor
Salmonella Reference Laboratory,
Colindale, London, England

A seven-months-old African baby boy, living in Sierra Leone, had suffered from pyrexia and diarrhoea for three weeks before being sent to a hospital. On admission, the child looked ill, was listless, slightly dehydrated, and had a temperature of 102°. He took his food well, did not vomit, and the faeces, which were formed, were greenish in colour and contained some mucus but no ova or protozoa. Two days later, an organism of the salmonella group was isolated from the faeces. On the fourth day after admission to the hospital, the child died. Sera taken from three contacts gave negative results with H and O suspensions of the organism. The latter was not isolated from any sample of faeces examined from the local animals and no other strains have been identified.

The organism produced a typical salmonella colony on MacConkey agar, fermented glucose, maltose, mannitol, dulcitol, sorbitol, arabinose, rhamnose, xylose, and trehalose, with the production of acid and gas in 1 day; acid only was produced in raffinose after 6 days incubation, failed to ferment lactose, sucrose, salicin, adonitol, inulin, and inositol. This organism failed to form indol and urease, and to liquefy gelatin; it produced H₂S and utilized citrate and mucate; the d-tartrate and M.R. tests were positive and the V.P. test negative.

Serological tests showed that the organism was agglutinated to titre by a S. invernness serum and reciprocal absorption tests proved that the somatic antigen structure of S. invernness and of the new serotype were identical. The organism was also found to be diphasic, phase 1 being agglutinated to titre by a S. tel aviv H (y) serum, and phase 2 by a S. thompson var. berlin H (1, 5) serum. Reciprocal absorption tests confirmed the antigenic identity of both the flagellar phases to be H = y - 1, 5.

SUMMARY

A new serotype (Salmonella freetown) is described. This organism, having the antigenic structure 38 : y : 1,5, was isolated from an African baby who subsequently died of diarrhoea.