A NEW SALMONELLA SEROTYPE: S. SEDGWICK

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SUMMARY. A new Salmonella serotype (44:b:e,
n,z₁₅) was described and the designation S.
sedgwick was assigned to it. The culture was
isolated from the stool of a male child who
was not ill at the time.

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The Salmonella serotype to be described, Salmonella
sedgwick (4451-63), was isolated from the stool of a male
child, aged 13 years, who did not have symptoms of gastro-
enteritis at the time. Salmonella newport also was isolated
from the stool of this individual.

The biochemical reactions given by culture 4451-63 indi-
cated it was a motile member of the genus Salmonella. In
the terminology of Kauffmann (1960, 1963) the strain would
be classified as subgenus I although certain biochemical re-
actions were aberrant (e.g. sodium malonate was utilized
in three days). It failed to produce urease or phenylalanine
deaminase and failed to grow in KCN medium. Gelatin was
liquefied after 18 days' incubation. Nitrate was reduced to
nitrite, and lysine and ornithine decarboxylases as well as
arginine dihydrolase were produced. When tested accord-
ing to the method of Kauffmann and Petersen (1956), mucate
and D-tartrate were utilized in one day, sodium citrate in
two days, while L- and I-tartrates were not utilized. Tests
for β -galactosidase activity (ONPG, method of LeMinor and
Ben Hamida, 1962) were negative. Acid and gas were pro-
duced from glucose, maltose, mannitol, rhamnose, arabin-
ose, inositol, dulcitol, xylose, sorbitol, and trehalose within
24 hours. Cellobiose was fermented after five days. Lac-
tose, sucrose, salicin, raffinose, glycerol and adonitol were
not attacked.

Culture 4451-63 belonged to Salmonella O group 44 and
was agglutinated to the titer of S. niarembé O serum (44).

In adsorption tests the strain removed all agglutinins from that serum.

The H antigens of 4451-63 were diphasic. Phase 1 flagellar antigen was flocculated to the titer of S. paratyphi B phase 1 H (b) serum and in absorption tests, removed all agglutinins from it. Phase 2 of 4451-63 was agglutinated in diagnostic dilutions by serums containing agglutinins for antigens e, n When tested with single factor serums for antigens x, z₁₅, z₁₆, z₁₇, and z₁₈, agglutination occurred only in z₁₅ and z₁₇ serums. Single factor z₁₅ was agglutinated only when double the diagnostic dose of serum was used. Phase 2 was agglutinated to the titer of S. san diego phase 2 H (e, n, z₁₅, z₁₇) serum and reduced the titer of that serum from 1:6400 to 1:400 in absorption tests.

Culture 4451-63 was designated as the standard strain of a new serotype with the antigenic formula 44:b:e, n, z₁₅ and the name Salmonella sedgwick proposed for it.

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