A NEW SALMONELLA TYPE: SALMONELLA
ESCANABA (6, 7: k-e, n, z₁₅)

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Salmonella escanaba was forwarded for confirmation by Mr. Arnold Juenker of the Michigan State Department of Health, who had correctly identified the antigens of the organism and recognized it as an undescribed serotype. The organism was isolated from the stool of an asymptomatic adult female who had diarrhea one month previously.

In its cultural and biochemical aspects the organism was a typical member of the Salmonella group which failed to form indol, was methyl red positive and Voges-Proskauer negative, and grew readily in Simmons' citrate medium. Hydrogen sulfide was produced but the bacterium failed to hydrolyze urea, to liquefy gelatin, or to grow in KCN medium. The lysine decarboxylase test was positive and mucate, D-tartrate, and citrate were utilized when tested by the method of Kauffmann and Petersen (1956). Malonate was not attacked. Acid and gas were produced promptly from glucose, arabinose, xylose, rhamnose, maltose, trehalose, dulcitol, inositol, mannitol, and sorbitol. Lactose, sucrose, raffinose, salicin, and adonitol were not attacked.

The organism was a typical member of Salmonella O group C₁, was agglutinated to the titre of Salmonella thompson O (6,7) serum, and in absorption tests removed all agglutinins from the serum. The H antigens were diphasic and phase 1 was agglutinated to the titre of S. thompson, phase 1 (k) serum and in absorption tests removed all agglutinins from the serum. Phase 2 was agglutinated actively by e, n, x and e, n, z₁₅ sera and by single factor z₁₅ serum but not by x serum. In absorption tests it removed all H agglutinins from e, n, z₁₅ serum prepared from a sucrose

fermenting organism having the formula 4, 12: e, n, z₁₅ (Edwards, 1950). The organism was assigned the antigenic formula 6, 7: k-e, n, z₁₅.

SUMMARY

A new Salmonella type, S. escanaba (6, 7: k-e, n, z₁₅) is described. It was isolated from the stool of an asymptomatic adult female who had diarrhea one month previously.

REFERENCES

- Edwards, P. R. 1950. Unusual antigenic variation in an enteric bacterium. Proc. Soc. Exp. Biol. and Med. 74:471-474.
- Kauffmann, F. and A. Petersen. 1956. The biochemical group and type differentiation of Enterobacteriaceae by organic acids. Acta path. et. microbiol. Scand. 38: 481-491.