Two new Salmonella types: Salmonella Holcomb and Salmonella Newrochelle

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The two serotypes to be described were received for confirmation from the New York State Department of Health. Salmonella newrochelle was isolated in the New Rochelle Hospital by Dr. W. C. Schraft and Salmonella holcomb in the Rochester Health Laboratory by Dr. H. R. Morgan. Both were derived from the stools of cases of enteric infection in man. The person from whom S. newrochelle was isolated was an adult male who was affected with diarrhea in French Equatorial Africa two months previously and who had experienced bouts of fever and diarrhea since that time.

The two cultures possessed cultural characteristics typical of the genus Salmonella and results obtained in biochemical tests with them were identical. The organisms failed to produce indol, were methyl red positive and Voges-Proskauer negative and grew readily in Simmons' eitrake medium. Hydrogen sulfide was produced, but the bacteria 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. The cultures promptly produced acid and gas from glucose, arabinose, rhamnose, xylose, maltose, trehalose, mannitol, dulcitol, and sorbitol. Lactose, sucrose, raffinose, salicin, inositol, and adonitol were not attacked.

S. holcomb was a member of Salmonella group C₂, was agglutinated to the titre of, and in absorption tests removed all agglutinins from, Salmonella newport O (6,8) serum. The H antigens of S. holcomb were diphasic and phase 1

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was agglutinated to the titre of Salmonella bredeney, phase 1 (1,v) serum. It was agglutinated actively by single factor v serum but not by sera for factors w, z_13, or z_28. In absorption tests it reduced the titre of S. bredeney, phase 1 serum from 4000 to 100. After absorption the serum no longer agglutinated phase 1 of Salmonella worthington (1,w), Salmonella uganda (1,z_13), or Salmonella jayiana (1,z_28).

Phase 2 of S. holcomb was agglutinated to the titre of Salmonella abortus equi H (e,n,x) serum and in absorption tests removed all agglutinins from the serum. S. holcomb was assigned the antigenic formula $6,8:1,v-e,n,x$.

S. newrochelle was a member of Salmonella O group E, It was agglutinated to the titre of, and absorbed all agglutinins from Salmonella anatum O (3,10) serum. The H antigens were diphasic and phase 1 was agglutinated to the titre of, and absorbed all H agglutinins from, Salmonella thompson, phase 1 (k) serum. Phase 2 was agglutinated to the titre of Salmonella worthington, phase 2 (1,w) serum and by single factor w serum but not by sera for factors v, z_13, or z_28. In absorption tests phase 2 of S. newrochelle exhausted S. worthington, phase 2 serum of H agglutinins. It was assigned the antigenic formula $3,10:k-1,w$.

**SUMMARY**

Two new Salmonella serotypes are described: S. holcomb ($6,8:1,v-e,n,x$) and S. newrochelle ($3,10:k-1,w$). Both were isolated from cases of enteric infection in man.

**REFERENCE**