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TWO NEW SALMONELLA TYPES (S. CAIRINA AND S. BLUKWA) FROM THE BELGIAN CONGO

By

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1. SALMONELLA CAIRINA

The culture (1777) was isolated at Blukwa from the feces of an adult, healthy duck (*Cairina moschata domestica*).

The biochemical behaviour of this new type is as follows: No fermentation of adonitol, inositol, lactose, salicin, and sucrose. No production of indole, no liquefaction of gelatin (after 60 days at 20° C.) and no decomposition of urea. Rapid fermentation of arabinose, dulcitol, glucose (with gas), maltose, mannitol (with gas), rhamnose, sorbitol, trehalose, and xylose. Positive reaction in Stern's glycerol-fuchsin broth, and formation of H₂S. Prompt growth in liquid ammonium media containing glucose and sodium citrate. Positive reaction in d-tartrate, mucate, and sodium-citrate after 1 day, positive reaction in i-tartrate after 2-3 days. Nitrates were reduced, the Voges-Proskauer reaction was negative and the methyl-red reaction was positive.

Serologically the types has the formula III,X:z₃₅:z₆. Cross-absorptions showed that the O antigen is identical with the O antigen of S.london. The H antigen of phase 1 (z₃₅) is not identical with the H antigen of phase 2 of S.chittagong = (I),III,X,(XIX):b:z₃₅ (Taylor, Hayes and Freeman).

Beside a common antigen, both phases z₃₅ contain strongly developed special factors. Further, both phases z₃₅ of S.chittagong and S.cairina have minor H antigenic relationships to S.paratyphi A and S.poonna (phase 1).

The H antigen of phase 2 (z₆) of S.cairina is identical with the H antigen of S.kentucky, phase 2.

2. SALMONELLA BLUKWA

The culture (1821) was isolated from the feces of a patient suffering from a heavy enteritis with fever. By direct investigation of the

feces red and white blood cells and eggs of *Schistosoma mansoni* were found.

The biochemical behaviour of this new type is identical with that of the above described new type, *S.cairina*.

Serologically the type has the formula XVIII:z₄,z₂₄:-. Cross-absorptions showed that the O antigen is identical with the O antigen of *S.cerro* = XVIII:z₄,z₂₃:-. The H antigen is identical with the H antigen of *S.duesseldorf* = VI,VIII:z₄,z₂₄:-.

SUMMARY

The authors describe two new *Salmonella* types from the Belgian Congo:

S.cairina = III,X:z₃₅:z₆ and

S.blukwa = XVIII:z₄,z₂₄:-.

REFERENCE

Taylor, J., W. Hayes and J. Freeman: *J. of Path. and Bact.* 60, 35, 1948.