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

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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 = (1),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.poona (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 : z₂₀, z₅ and S.blukwa = XVIII : z₄, z₂₄ : - - .

REFERENCE