SALMONELLOSIS IN LIZARDS OF GHANA

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Mackey (1955), working in Dar-es-Salaam, Tanganyika, found the house lizard population to be heavily infected with salmonella organisms. Out of 301 lizards investigated by him from 1943 to 1953 he recovered salmonellae from 144, giving the high figure of 48 per cent positive isolations. Two new types, Salmonella mgulani and S. lindi, were found. During 1956 an investigation of the types of salmonellae carried by house lizards of Ghana was undertaken at this laboratory, specimens being collected from local districts including Accra, Legon Hill, Teshie, Takoradi, Winneba, Tamale, and Aburi.

MATERIALS AND METHODS

Lizard droppings were collected into Selenite F broth, incubated for 24 to 48 hours, and then subcultured on to desoxycholate citrate agar. Non-lactose-fermenters were selected for biochemical and serological investigation, and those showing the characteristics of a salmonella were forwarded to The David Bruce Laboratories for identification.

RESULTS

Up to December, 1956, 183 specimens of lizard droppings were examined, and of these 40 yielded salmonellae, i.e., 22 per cent.

In 28 instances the salmonellae isolated were of known types, and these are listed below, the figure in brackets indicating the number of times the organism was isolated: S. saint paul (1), S. stanleyville (4), S. ituri (1), S. newport (2), S. lindenburg (2), S. takoradi (2), S. canastel var. monophasic (1), S. london (2), S. seegefeld (4), S. rubislaw (2), S. alachua (1), S. waycross (1) and S. christianborg (5).

In addition, six types, not previously described, were isolated, and the provisional names and antigenic structure of these are given below:

- **S. legon**: 4; 12; c; 1, 5 ... ... ... (1)
- **S. tamale**: 8, 20; z<sub>28</sub>; — ... ... ... (1)
- **S. akuafo**: 16; y; 1, 6 ... ... ... (6)
- **S. ghana**: 21; b; 1, 6 ... ... ... (1)
- **S. kokomlemle**: 39; 1, v; enx ... ... ... (1)
- **S. teshie**: 47; 1, z<sub>13</sub>, z<sub>28</sub>; enz<sub>15</sub> ... ... ... (1)

One salmonella remains unidentified. This had the somatic antigens 3, 10, but as motility could not be induced, flagellar antigens could not be ascertained.
DISCUSSION

In the present series, the percentage of positive results compared unfavourably with that described by Mackey, being only 22, but six salmonellæ not previously described were recovered.

Comparing the results obtained in Dar-es-Salaam with those obtained in Ghana, only three types of salmonella appear to be common to both areas, viz. *S. newport*, *S. rubislaw*, and *S. waycross*.

As part of a survey of salmonellosis in Ibadan, Collard and Montefiore (1956) conducted a similar investigation by culturing the contents of the large bowel of lizards. They isolated salmonellæ from 11.2 per cent of a total of 110 agamid lizards, listing five known types (*S. elizabethville*, *S. kingston*, *S. kaapstad*, *S. durham* and *S. takoradi*) and a new type with the provisional antigenic formula 4, 12: i; 1, 6.¹

SUMMARY

183 specimens of droppings from house lizards in Ghana were examined for salmonellæ; 40 were positive. Six hitherto undescribed types were isolated. The names and antigenic structure of these new types are given.

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REFERENCES


ECHOES FROM THE PAST. No. 1

The life of the soldier, like every other life of irregular exertion and hardship, predisposes him to disease while, from the nature of the service, the treatment of military diseases differs from common practice, and requires peculiar experience, both in preventing the attack and also rendering their cure speedy and complete. Having it in mind that military practice requires bold and energetic measures; and that the soldier's absence from duty on the day of actual service is perhaps an irreparable loss to the country . . . hence the necessity of a medical officer possessing superior professional knowledge to others, much decision, and a good deal of acquired experience.


¹ This is now included in the Kauffman-White Scheme as *S. agana*.—Ed.
Salmonellosis in Lizards of Ghana

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