A New Serovar and a New Serological Variant Belonging to Salmonella enterica Subspecies diarizonae

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The genus Salmonella comprises two species: (1) S. enterica, which is divided into six subspecies: S. enterica subspecies enterica (I), S. enterica subspecies salamae (II), S. enterica subspecies arizonae (IIa), S. enterica subspecies diarizonae (IIb), S. enterica subspecies houtenae (IV) and S. enterica subspecies indica (VI); and (2) S. bongori (formerly called S. enterica subspecies bongori V). Species and subspecies can be distinguished on the basis of differential characters, and these, through antigenic formulas, into 2,501 serovars. Usually the 1,478 serovars that belong to the enterica species enterica subspecies (I) colonize the enteric tract of warm-blooded animals, while the other 1,023 serovars belonging to subspecies (I), IIIa, IIIb, IV and VI and to species S. bongori are found in cold-blooded animals and in the environment (Popoff 2001).


In our methodology, cloacal swabs from snakes (Crotalus durissus) were introduced in Cary-Blair transport medium (Difco) and pre-enriched in 10 ml of Buffered Peptone Water (Merck) incubated 16-18 h at 37°C. An aliquot of 0.1 ml was transferred to 10 ml of Rappaport-Vassiliadis (Merck). After incubation at 37°C for 18 to 24 h, the broth was streaked onto indicative selective media (Hektoen Enteric Agar, Merck). After incubation at 37°C for 18 to 24 h, three to five colonies suspected of Salmonella, were submitted to preliminary biochemical identification using Triple Sugar Iron Agar, Lysine Iron Agar and Urea Broth (Merck). Strains presenting a biochemical profile suggestive of Salmonella were submitted to additional biochemical tests (Ewing 1986). The strains confirmed as Salmonella were differentiated in species and subspecies (Popoff 2001). Both strains were recognized as belonging to S. enterica subspecies diarizonae (Table).

Before performing the antigenic characterization (rapid slide agglutination), each culture was tested for smooth (S) or rough phase (R) by inspection of suspensions made done in 2% saline solution. Once in the smooth phase, the cultures were serotyped by using Salmonella OH polyvalent antiserum (Fundação Oswaldo Cruz), somatic (O) and flagellar (H) polyvalent antiser and the respective monovalent antiser (Difco and Sanofi-Pasteur) (Popoff 2001). One of the strains (strain no. 4, also de-
nominated as Institut Pasteur 9173/01), isolated from a snake captured in Três Corações, state of Minas Gerais, presented the antigenic formula 42:z\(_{10}\): e,n,x,z\(_{15}\): z\(_{60}\) (triphasic variant). The other strain (strain no. 25, also denominated as Institut Pasteur no. 9192/01) had the antigenic formula 16:k:e,n,x,z\(_{15}\) (new serovar). The new serovar and the new serological variant of *S. enterica* subspecies *diarizonae* in the present communication will be included in the next edition (9th) of the Kauffmann-White Scheme.

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REFERENCES


