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An Outbreak of *Salmonella* Food Poisoning at a Snapping Turtle Restaurant

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We report here an outbreak of *Salmonella enterica* serovar Typhimurium infection at a snapping turtle (Suppon) restaurant in Japan.

On September 27, 2007, a public health center received a report that a 4-year-old boy had been suffering from diarrhea and fever since the night of September 23. The public health center's investigation revealed that this boy had eaten a meal together with 7 other people (Group A) at a snapping turtle restaurant on September 22. On that day, 14 people visited the restaurant. Among them, 8 people including the 4-year-old-boy developed symptoms: 7 people from Group A and one in another group (Group B) (Table 1). The symptoms included diarrhea, abdominal pain, vomiting, and fever. The incubation period was calculated to be 12-60 h. *S. Typhimurium* was isolated from a total of 4 people: 3 from Group A and one from Group B. None of the other customers (Groups C and D) developed symptoms.

A total of 17 samples were examined: one meat and one blood sample from a snapping turtle the restaurant was preparing to serve, 12 swab specimens from cooking utensils, and 3 stool specimens from employees of the restaurant. *S. Typhimurium* strains were isolated from the meat and blood samples and from 2 swab specimens from a carapace and a vessel of the snapping turtle.

The bacteria levels in the meat were above 5,500/100 g as determined by the MPN method, and 800 cfu/g by inoculation on the appropriate plate. The isolates were subjected to pulsed-field gel electrophoresis (PFGE) analysis. The PFGE patterns after digestion with *BlnI* were the same for all the isolates (Fig. 1). The isolates were sensitive to all the antibiotics tested: chloramphenicol, streptomycin, tetracycline, kanamycin, ampicillin, nalidixic acid, cefotaxime, ciprofloxacin, gentamicin, fosfomycin, norfloxacin and sulfamethoxazole/trimethoprim.

These epidemiological and bacteriological data indicated that the outbreak was caused by the *S. Typhimurium* strain that contaminated snapping turtles served at the restaurant.

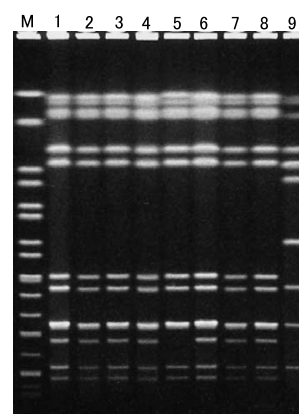


Fig. 1. PFGE patterns of *S. Typhimurium* isolates after digestion with *BlnI*. Lanes 1-4, isolates from symptomatic patients; lane 5, an isolate from a blood sample from the snapping turtle; lane 6, an isolate from a meat sample from the snapping turtle; lane 7, a swab specimen from the carapace; lane 8, a swab specimen from the vessel for the snapping turtle; lane 9, an isolate in other case; M, *Salmonella* Braenderup after H9812/*XbaI* digestion.

Table 1. Detection of *S. Typhimurium*

Group	No. of customers included	No. of patients	No. of tested	No. of patients positive for isolation of <i>S. Typhimurium</i>
A	8	7	6	3
B	3	1	1	1
C	2	0	0	0
D	1	0	0	0
Total	14	8	7	4

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