Letter to the Editor

Isolation of *Yersinia enterocolitica* Serogroup O:8, Biogroup 1B

We are writing in response to the article by Ichinohe et al. (2) concerning the first isolation of *Yersinia enterocolitica* serogroup O:8, biogroup 1B (formerly biogroup 1 esculin and salicin negative), from a child with acute enteritis in Japan. The authors state that this is the first case of human infection due to this pathogenic bio-serogroup outside of North America.

That is simply not true. In 1987, a report by our National Center for Yersiniosis showed the remarkable isolation of pathogenic "North American" strains of *Y. enterocolitica* from four children with acute enteritis in Italy during an 8-year period (1). Over the next 4 years, only one additional child suffering from acute enteritis due to this phenotype of *Y. enterocolitica* has been observed by investigators in Italy (3). Thus, our current level of knowledge and experience with human yersiniosis indicates that the occasional introduction of the pathogenic North American strains into Italy does not have an important epidemiologic impact.

In contrast to our observations, Ichinohe et al. (2) concluded that their case report does "show that *Y. enterocolitica* serotype O:8 is gradually spreading around the world." We are concerned that the authors may have drawn a conclusion not justified by the data that they presented.

REFERENCES

1. **Chiesa, C., L. Pacifico, V. Cianfrano, and M. Midulla.** 1987. Italian experience with yersiniosis (1978–1985). Contr. Microbiol. Immunol. **9**:76–88.
2. **Ichinohe, H., M. Yoshioka, H. Fukushima, S. Kaneko, and T. Maruyama.** 1991. First isolation of *Yersinia enterocolitica* serotype O:8 in Japan. J. Clin. Microbiol. **29**:846–847.
3. **Martini, A., M. Fantasia, and A. Raballo.** 1989. *Yersinia enterocolitica* O8 "American strain" isolated in Italy. Microbiologica **12**:345–347.

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Author's Reply

We are aware of the report by Chiesa et al. (2) concerning the isolation of *Yersinia enterocolitica* serotype O:8, biotype 1, from humans in Italy. Wauters et al. (6) divided strains that were lipase, indole, and xylose positive (corresponding to biogroup 1) into biogroups 1A and 1B. Biogroup 1A strains are environmental strains, are esculin and salicin positive, and are devoid of the virulence plasmid. Biogroup 1B strains are mostly from human sources, possess the virulence plasmid, are esculin and salicin negative or delayed positive, and to date have originated from North America. Our isolate possessed the virulence plasmid and was confirmed to be *Y. enterocolitica* serotype O:8, biogroup 1B. In 1991, Chiesa et al. (3) reported that five human strains of *Y. enterocolitica* serotype O:8, biogroup 1 (esculin and salicin negative), isolated in Italy were virulence plasmid negative, as were tests of adult mouse intravenous lethality. Thus, their data suggest that these isolates in Italy are avirulent and that they are not the "North American" strains. The spread of North American strains around the world must be strongly considered, as these strains with the virulence plasmid were isolated from animals and food in Nigeria (1) and Taiwan (5) and from a patient in Japan (4).

REFERENCES

1. **Adesiyun, A. A., D. E. Agbonlahor, L. H. Lombin, and J. K. P. Kwaga.** 1986. Occurrence of virulence markers in species of *Yersinia* isolated from animals in Nigeria. Vet. Microbiol. **12**: 289–294.
2. **Chiesa, C., L. Pacifico, V. Cianfrano, and M. Midulla.** 1987. Italian experience with yersiniosis (1978–1985). Contr. Microbiol. Immunol. **9**:76–88.
3. **Chiesa, C., L. Pacifico, A. Guiyoule, G. Ravagnan, and H. H. Mollaret.** 1991. Phenotypic characterization and virulence of O8 *Yersinia* strains isolated in Europe. Contr. Microbiol. Immunol. **12**:182–191.
4. **Ichinohe, H., M. Yosioka, H. Fukushima, S. Kaneko, and T. Maruyama.** 1991. First isolation of *Yersinia enterocolitica* serotype O:8 in Japan. J. Clin. Microbiol. **29**:846–847.
5. **Tsai, S. J., and L. H. Chen.** 1990. Occurrence of *Yersinia enterocolitica* in pork products from Northern Taiwan. Contr. Microbiol. Immunol. **12**:56–62.
6. **Wauters, G., K. Kandolo, and M. Janssens.** 1987. Revised biogrouping scheme of *Yersinia enterocolitica*. Contr. Microbiol. Immunol. **9**:14–21.

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