CASE REPORT

Typhoid Fever: A Rare Occurrence in El Paso

Rene Joukhadar, M.D., PGY-2
Armando D. Meza, M.D.
Texas Tech University H.S.C.

BACKGROUND INFORMATION

Typhoid fever is a severe systemic illness characterized by sustained fever and abdominal symptoms. The disease is caused most commonly by Salmonella typhi, and also by Salmonella paratyphi A, B, or C. The bacteria are usually contracted by ingestion of contaminated food or water. Complications of this illness may be life threatening as by the third week of infection untreated individuals are at risk of intestinal bleeding and perforation. The mortality rates are high if treatment is delayed or withheld [1]. We report a case of typhoid fever occurring uncommonly in El Paso according to local public health data, although according to the Pan American Health Organization (PAHO), morbidity for typhoid in the U.S. border zone is 60 percent higher than the national rate [2].

CASE PRESENTATION

A 63-year-old man from El Paso, Texas presented in December 2007 with fever, chills and decreased appetite of one week duration. The patient did not report diarrhea until the second day of admission. He had no history of recent or remote travel and does not use public restrooms. The patient drinks bottled water, and eats well cooked food at home. Other household family members were asymptomatic. An extensive review of systems was unremarkable. The physical exam was unremarkable except for the relative bradycardia. Given his measured temperature, expected pulse rate should have been significantly higher than the measured temperature elevation, d) normal sinus rhythm without arrhythmia, e) not taking a â-blocker medication. Our patient fulfilled all criteria for relative bradycardia. Given his measured temperature at different times during the first two days of his hospital stay the expected pulse rate should have been significantly higher than that measured (Figure1). Relative bradycardia may be due to infectious or non infectious etiologies [9,10] but among the infectious etiologies it is a characteristic feature of typhoid fever with a reported sensitivity of 70% and specificity of 94.7% [8,9,11].

Our decision to place the patient on contact isolation before confirming our diagnosis may have prevented a hospital epidemic where the infection could have spread to other patients sharing the restroom and later to their families.

Typhoid fever is a reportable public health illness. Timely reporting to public health authorities is crucial in order to investigate the source of infection, identify people at risk, and take preventive measures. Hence, not only patient education is important but also public education. Later follow-up is necessary for patients with typhoid fever to assess for chronic, asymptomatic carrier state that requires prolonged antibiotic retreatment and sometimes cholecystectomy [12,13].

REFERENCES

Continued on page 9
Typhoid Fever: A Rare Occurrence in El Paso
(Continued)


**Table 1:** Infectious diseases commonly associated with relative bradycardia.

<table>
<thead>
<tr>
<th>Babesiosis</th>
<th>Dengue fever</th>
<th>Legionella</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leptospirosis</td>
<td>Malaria</td>
<td>Psittacosis</td>
</tr>
<tr>
<td>Q fever</td>
<td>Rocky Mountain spotted fever</td>
<td>Typhoid fever</td>
</tr>
<tr>
<td>Typhus</td>
<td>Viral hemorrhagic fevers</td>
<td>Yellow fever</td>
</tr>
</tbody>
</table>

**Figure 1 Legend:**

The heart rate in beats per minute (vertical axis) is plotted against temperature in °F (horizontal axis). The circles show four readings of our patient’s measured heart rate recorded simultaneously with his temperature, the triangles show the expected heart rate for this patient given his measured temperature.

Rene Joukhadar, M.D., PGY-2, Department of Internal Medicine, Texas Tech University Health Sciences Center, El Paso, Texas.

Armando D. Meza, M.D., Program Director, Assistant Professor, Chief of Infectious Diseases, Department of Internal Medicine, Texas Tech University Health Sciences Center in El Paso, Texas.