COMMUNICATIONS TO THE EDITOR

Communications for this section will be published as space and priorities permit. The comments should not exceed 500 words in length, with a maximum of five references; one figure or table can be printed. Exceptions may occur under particular circumstances. Contributions may include comments on articles published in this periodical, or they may be reports of unique educational character. Specific permission to publish should be cited in a covering letter or appended as a postscript.

Melioidosis

Therapy with Multiple Antimicrobial Agents and Cellular Immunity

To the Editor:

I have read with interest the report by Fuller et al entitled “Treatment of Pulmonary Melioidosis with Combination of Trimethoprim and Sulfamethoxazole” (Chest 74:222-224, 1978). We quite agree with Fuller et al that in patients with pneumonia, effective therapy has been achieved with administration of the single combination of sulfamethoxazole and trimethoprim. The fact that antagonism occurred when therapy with the combination of sulfamethoxazole and trimethoprim was administered with other antibiotics in one case of pulmonary melioidosis does not imply the use of therapy with this single combination of sulfamethoxazole and trimethoprim in disseminated melioidosis, a different entity for which therapy with at least two antimicrobial agents in combination has been recommended for 30 days (chloramphenicol, 9 to 12 gm/day; kanamycin, 2 to 4 gm/day; and sulfonamide, 4 to 6 gm/day).

We would like to share our recent experience with disseminated melioidosis, with emphasis on therapy with multiple antimicrobial agents and cellular immunity. In recent years, eight cases of disseminated melioidosis were detected at Ramathibodi Hospital and Paolo Memorial Hospital, Bangkok, Thailand. Out of eight cases, one masqueraded as infective endocarditis, but the patient died shortly after arrival. In the remaining cases, multiple antimicrobial agents in combination (sulfamethoxazole-trimethoprim combination, 4 to 6 gm/day; chloramphenicol, 4 to 9 gm/day; kanamycin or amikacin, 1 to 2 gm/day) were given for four weeks, despite the fact that in vitro studies have revealed antagonism between these antibiotics used in disseminated melioidosis; however, the mortality was greater than 50 percent and was up to 95 percent in disseminated melioidosis treated with a single agent. In our seven cases of bacteremia with Pseudomonas pseudomallei, therapy with high dosages of multiple antibiotics for four weeks resulted in a favorable outcome (Table 1).

Table 1—Clinical Data on Eight Patients with Disseminated Melioidosis

<table>
<thead>
<tr>
<th>Case, Sex, Age (yr)</th>
<th>Initial Symptoms</th>
<th>P pseudomallei Treatment*</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, M, 40</td>
<td>Blood; sputum; urine</td>
<td>C, K, and S/T</td>
<td>Recovered</td>
</tr>
<tr>
<td>2, M, 57</td>
<td>Fever</td>
<td>Blood</td>
<td>C, K, and S/T</td>
</tr>
<tr>
<td>3, M, 37</td>
<td>Fever and weakness</td>
<td>Blood</td>
<td>K, S/T, and TE; then C, S/T, and TF</td>
</tr>
<tr>
<td>4, F, 62</td>
<td>Fever and backache</td>
<td>Blood</td>
<td>K, S/T, and TE; then C, S/T, and L</td>
</tr>
<tr>
<td>5, M, 40</td>
<td>Cellulitis</td>
<td>Blood; skin; pus</td>
<td>C, K, and S/T</td>
</tr>
<tr>
<td>6, M, 73</td>
<td>Cervical</td>
<td>Blood; lymph node; pus</td>
<td>C, A, S/T, and L</td>
</tr>
<tr>
<td>7, F, 19</td>
<td>Cellulitis</td>
<td>Blood; skin</td>
<td>C, K, and S/T</td>
</tr>
<tr>
<td>8, M, 16</td>
<td>Masqueraded as endocarditis</td>
<td>Blood</td>
<td>None</td>
</tr>
</tbody>
</table>

* C, Chloramphenicol; K, kanamycin; S/T, combination of sulfamethoxazole and trimethoprim; TE, tetracycline; TF, transfer factor; L, levamisole; and A, amikacin sulfate (Amikin).

with an antibiotic combination; shortly after the immunopotentiation, their cellular immunity regained a normal level.2,8 Bacteremia with P pseudomallei in all seven cases was fairly well controlled, and all patients were discharged from the hospital and have remained well. This observation once again confirms the effective therapy with multiple antimicrobial agents in disseminated melioidosis, and in this communication, we emphasize the role of transfer factor and levamisole in restoring depressed cellular immunity.

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REFERENCES


To the Editor:

We are indeed encouraged to learn of the successful use of trimethoprim and sulfamethoxazole in combination with other antimicrobial agents for treating disseminated melioidosis, as reported by Tanphaichitr and coauthors.

In our single experience with life-threatening disease limited to the lungs (Chest 74:222-224, 1978), antagonism occurred when trimethoprim and sulfamethoxazole were used in various combinations with tetracycline, chloramphenicol, and kanamycin. This antagonism, which was suspected because of the failure of the patient's condition to improve clinically, was confirmed by studies of the serum showing an absence of bactericidal activity; however, bactericidal activity was excellent when the combination of trimethoprim and sulfamethoxazole was used alone in high dosage.

Although no significant antagonism occurred in the cases of Tanphaichitr et al, it would have been interesting to know the serum bactericidal levels of the combinations of drugs vs that of the trimethoprim-sulfamethoxazole combination used alone at high dosage. If the combination of trimethoprim and sulfamethoxazole alone could be used in disseminated melioidosis, it would avoid the well-known potential side effects of therapy with the other antibiotics.

We continue to recommend determining serum bactericidal levels in serious cases of melioidosis. These levels are rapidly obtained from the bacteriologic services of most hospitals, whereas determinations of minimum inhibitory concentrations often must be sent out to other institutions. Moreover, bactericidal levels have the advantage of being an in vivo test. Since it is conceivable that antagonism may occur whenever combinations of drugs are used, such as was seen in our case, bactericidal levels are a simple method of detecting such an occurrence and altering the therapy.

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Pleural Effusion and Renal Cell Carcinoma
An Angiographic-Pathologic Correlation

To the Editor:

Renal cell carcinoma is notorious for its myriad of clinical presentations. Pleural effusion is rarely the initial clinical problem with this tumor.3

Case Report

A 53-year-old man was admitted to San Francisco General Hospital in November 1977 with a cough and a four-month history of loss of weight. The patient smoked two packs of cigarettes per day; otherwise, the findings from the review of systems were unremarkable.

Examination showed a thin normotensive man in no respiratory distress; his temperature was 38.5°C (101.3°F). Per-

Chest, 75: 5, May, 1979

Discussion

Adenocarcinoma of the kidney has been called the "internist's tumor" because of its variable presentation and course.4 Our case report describes another unusual presentation of this neoplasm, and the diagnostic evaluation illustrates an unexpected angiographic finding.

It is well known that hypernephroma may spread by direct invasion, lymphogenous extension, lymphohematogenous spread, or direct hematogenous dissemination. In the present case, the pleural metastases must have developed from posterior intercostal arteries, the bronchial circulation, or Batson's vertebral plexus. The unusual incidental angiographic finding of these pleural lesions was helpful in guiding our diagnostic evaluation and staging of this patient's disease.

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References


Communications to the Editor 847

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