The Etiology of Lower Respiratory Tract Infections in American Troops.

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OBJECTIVE: To determine the etiology of non–bacterial pneumonitis occurring in American troops stationed in the Republic of Vietnam.

DESCRIPTION: During the middle period of 1969, a number of patients were seen at the 3rd Field Hospital, Saigon, with an unusual form of pneumonia. The syndrome was unusual in the following respects.

1. The patients frequently presented as a non–specific FUO with normal chest x–rays and several days elapsed before the clinical and x–ray features of pneumonitis made their appearance;

2. Many of the pneumonias were severe, associated with hypoxemia, pleuritic involvement and effusion with a prolonged (10–14 days) course. Complete recovery, however, was the rule, whether the patient was treated or not with antibiotics;

3. Sputum cultures in the majority of patients were negative.

As a result all patients admitted with, or developing pneumonitis not secondary to other conditions, were enrolled in a prospective study. Clinical radiographic and bacteriologic findings were the responsibility of personnel at the 3rd Field Hospital and 9th Med. Lab. Indirect immunofluorescence for scrub and murine typhus and melioidosis and cold agglutinin antibody titers were determined at the 9th Med. Lab. Sputum cultures for virus isolation and acute and convalescent sera were submitted to the Virus Dept., SMRL.

PROGRESS: Paired sera were received from 56 patients, and sputa from 50 relations are being analyzed by the WRAIR Research Team. Thirty seven sputa have been cultured for viruses, and only one was positive, an influenza A_2 Hong Kong variant being isolated. All sera have been tested for, and were negative to, CF antibody to respiratory syncytial and adenoviruses. One serum, in addition to the above, was positive for an increase in HI antibody to A_2/Hong Kong/68, and one to influenza B/Taiwan/62. Twenty (20) sera pairs have been tested to parainfluenza types 1–3 and were negative.

Of unusual interest is that of the 56 sera pairs tested, 22 showed significant increases of CF antibody to mycoplasma pneumoniae. Since convalescent sera were collected 14 days after admission it might be expected that an even larger number suffered from mycoplasma pneumonia.

SUMMARY: A serological survey of patients admitted to one hospital in Saigon, South Vietnam, with non–bacterial pneumonia revealed 39% were probably due to mycoplasma pneumoniae.

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