

Acute Pneumonitis in Thai Children

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OBJECTIVE: Earlier studies at Children's Hospital, Bangkok, Thailand showed bacterial pathogens such as Diplococcus pneumoniae and Staphylococcus aureus could be cultured from throat and nasopharyngeal swabs of many children in the absence of clinical pneumonia. Therefore the interpretation of such cultures is difficult. The objectives of this study are (1) to determine the etiology of acute pneumonitis of Thai children by culturing lung aspirates for bacteria and viruses; (2) compare laboratory findings of nasopharyngeal and throat cultures to those of lung aspirate cultures; and (3) obtain confirmatory information of diagnoses by analyses of acute and convalescent sera for antibodies to selected viruses and Mycoplasma pneumoniae.

DESCRIPTION: Excluding those with antimicrobial therapy prior to hospitalization, all patients with a clinical diagnosis of pneumonitis and with a definite shadow on their chest X-ray films were studied. Routine procedures used included AP and lateral chest X-rays, CBC including differential, tuberculin test, and bacteriologic cultures of blood, nasopharyngeal swabs and throat swabs. Lung aspirates were obtained by Thai physicians at Children's Hospital and sent immediately to the laboratory for processing. Additional X-rays were taken 24 hours later to detect possible complications.

PROGRESS: Twenty of 26 patients studied during this period were infants of 1 year or younger and 20 were males. Lung aspirates were positive for D. pneumoniae in 6 patients, alpha hemolytic streptococcus in 1 patient and Micrococcus spp. in 1 patient. One patient's lung aspirate was negative on admission but was positive at autopsy for Escherichia coli and Enterobacter aerogenes. There were 3 instances where pneumococci were cultured from blood, nasopharynx, or throat but not from lung aspirates. The only isolation of Haemophilus influenzae was from the nasopharynx of a patient whose lung aspirate was positive for alpha hemolytic streptococcus. Although all lung aspirates and blood cultures were negative for Staphylococcus aureus, this organism was isolated from the nasopharynxes of 8 patients, throats of 2 patients and from both sites in 3 patients. Results of virus and serological studies are not available at this time.

SUMMARY: A study has been initiated to determine the etiology of acute pneumonitis in Thai children by culturing lung aspirates. The bacterial pathogen isolated most frequently from lung aspirates was D. pneumoniae.

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