

Radiologic Features. Pneumonic changes on chest radiographs were present in ten children (47.6%) at admission, but all 21 children developed abnormal chest radiographs during the course of the disease. The primary radiologic abnormality was airspace opacity. Unilateral focal opacity was the most common presentation and was found in 18 children (85.7%). Two children (9.5%) had unilateral multifocal opacities, and one child (4.8%) had bilateral involvement. There was no particular distribution pattern. Peripheral zone involvement was found in six children (28.6%) in our series. The opacities found in the chest radiographs of our children showed evidence of progression, with an increase in the size or involvement of multiple areas in 18 children (85.7%). Bilateral involvement was observed in ten children (47.6%). Chest radiographic abnormalities were worst on 6.5 ± 2.7 days after admission. Two children (9.5%) had high-resolution computerized tomography of the thorax done because of a high clinical suspicion of SARS but initial negative chest radiographs. Both tomographs were abnormal and showed the characteristic ground-glass opacities, as described previously in adults (4). Their chest radiographs showed subsequent pneumonic changes (Figs. 1-3).

Treatment and Outcome. All children received antibiotic treatment. Twenty children (95.2%) received ribavirin as well. Ribavirin was given intravenously in 17 children (81.0%) and orally in three children (14.3%). Thirteen children (61.9%) received steroid treatment, of whom four (19.0%) required methylprednisolone. Only two children (9.5%) needed oxygen supplement during the course of the illness, and none required artificial ventilation. The side effects of treatment included 13 children (61.9%) who had an asymptomatic drop in hemoglobin (range, 0.8-3.2 g/dL), seven (33.3%) who had oral thrush, four (19.0%) who had hypertension, three (14.3%) who developed bradycardia, and two (9.5%) with severe acne. Fever subsided in 6.6 ± 3.1 days, and chest radiographs cleared by 10.5 ± 3.6 days.

Clinical Course Between Two Age Groups of Children. When comparing the 11 children below 12 yrs with the ten children 12 yrs and older, the older group had less cough. However, these children had higher temperatures, a longer duration of fever, and more constitutional up-

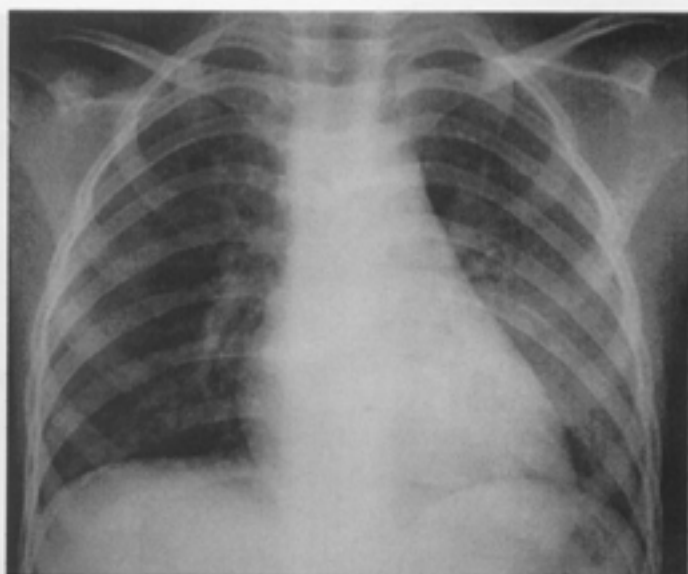


Figure 1. Anteroposterior chest radiograph of a 5-yr-old child showing airspace opacification with ill-defined border in the middle and lower zones of the left lung.



Figure 2. Localized consolidation in the posterior part of the right lower lobe under high-resolution computerized tomography of the thorax in a 6-yr-old child with a normal chest radiograph.

set in terms of malaise and dizziness. They had more derangement in laboratory variables, including platelet counts, ALT, LDH, and CPK. All of them received steroid treatment. The changes in their chest radiographs took a longer time to resolve (Table 3).

DISCUSSION

SARS is a serious respiratory disease reported to cause significant morbidity and mortality in the adult population. The accident and emergency department of our hospital raised the alarm that there was an outbreak in a housing estate when several patients with a similar address were admitted. We were able to follow the

course of the illness in 21 children infected during the outbreak and monitor their progress over 3 wks.

The clinical diagnosis of SARS used by our Hospital Authority (5) is different from that used by the WHO (6), as the latter is for surveillance purposes. It is still undergoing revision as we learn more about the disease. The clinical presentation of SARS in our children is similar to infections with other respiratory pathogens that cause atypical pneumonia. When comparing children older than with those younger than 12 yrs of age, the former had higher temperatures and more constitutional upset in terms of malaise and dizziness, and the latter had