

Table 3. Comparison between two age groups

Variables	<12 yrs (n = 11)	≥12 yrs (n = 10)	p Value
Maximum temperature, °C	38.6 ± 1.2	39.8 ± 1.0	.01
Fever duration, days	5.6 ± 3.5	8.2 ± 2.0	.11
Cough	7/11	2/10	.04
Malaise	4/11	9/10	.01
Dizziness	1/11	7/10	.004
Oxygen use	0/11	2/10	.12
Use of hydrocortisone	3/11	10/10	.001
Use of methylprednisolone	0/11	4/10	.02
Platelet count (×10 ⁹ /L) ^a	214 ± 70	163 ± 65	.21
Lowest platelet count (×10 ⁹ /L)	168 ± 42	125 ± 42	.05
Peak alanine transaminase, IU/L	32 ± 16	130 ± 126	.003
Peak lactic dehydrogenase, IU/L	783 ± 203	963 ± 426	.57
Chest radiograph involvement ^a	5/11	7/10	.26
Chest radiograph progression	8/11	10/10	.05
Chest radiograph worst on, day	6.2 ± 2.9	7.0 ± 2.6	.42
Chest radiograph cleared by, day	9.4 ± 3.1	11.9 ± 3.9	.09

^aAt admission.

It is not known why young children behave differently from adults or even adolescents. Because the disease seemed to respond to empirical treatment with steroids in earlier reports (2, 4), it may be that young children do not mount as aggressive an immunologic response in SARS compared with adults.

SARS is a highly infectious disease. Household contacts as well as healthcare workers are particularly vulnerable (7). In our series, 13 families had two to five members within the family infected with SARS, which amounted to 38 of a total of 57 (67%) household members. For the four sporadic cases, two lived in the same housing estate and two in the vicinity.

The mechanism of transmission in SARS remains unclear. The pattern of spread among household members and healthcare workers suggests that the major mode of transmission is through droplets and direct contact. The report on the investigation of the outbreak submitted by the Hong Kong government to the WHO gave a combination of factors as the probable explanation (8). The index patient and 66% of the other cases had diarrhea. Spread of the infection was thought to be through the sewage system, person-to-person contact, the use of shared communal facilities, and other environmental factors related to the structure of housing blocks. Interestingly, only two of our children had diarrhea.

The etiological agent of SARS is still under investigation. In our series, all bacteriologic and virologic tests failed to identify the presence of common bacteria

and viruses that caused the respiratory disease. The results were similar to other studies (2-4). The causative agent of SARS is currently thought likely to be a novel coronavirus (9). The RT-PCR test for coronavirus became available in Hong Kong 5 days after our first child with SARS was admitted. Its sensitivity and specificity are still not established. The positive rate (3 of 21) in our series was low, but it may be because our children were already prescribed ribavirin for a few days when the test was done. We urgently need a rapid and reliable test to assist in the diagnosis of the disease.

At the time of writing this report, 16 children were already discharged from the hospital with normal chest radiographs. The other children are recovering. We need to monitor the long-term effect on those given ribavirin and high-dose steroids. As time passes, we may learn more about the natural course of the illness so that we can avoid unnecessary treatment and the potential side effects.

The children were in a cohort ward during their hospitalization, with restricted visitation. Their affected adult family members generally did not do as well as the children. Thus, the psychosocial consequence of the disease is significant. The infectivity period of these children is still not known. Their caregivers have been asked to continue precautions against the spread of the disease at home, but the period is uncertain. Although infected children could be asymptomatic or have a milder disease, it is not clear

whether they can still transmit the disease to other people. Hong Kong has already suspended schools for 3 weeks, with plans to resume classes progressively. We await the impact this will have on the children and the community.

In summary, this is one of the early reports of experience with SARS in children. We conclude that the disease is milder, occurs in children of infected families, and has a favorable outcome. Treatment is not yet determined.

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