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TECHNICAL DISCUSSIONS - SUB-COMMITTEE B

POLIOMYELITIS

POLIOMYELITIS IN IRAN

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1. INTRODUCTION

Although acute anterior Poliomyelitis is still an uncommon condition in Iran, sporadic cases have always been encountered in different parts of the country; but there has never been a true epidemic. In the last few years there seemed to be an increase in the number of the cases. As the condition is not notifiable in Iran this is only a personal impression.

In the last 28 months I have seen 79 cases of paralytic polio in my private practice, 73 cases in Iranian children, and six cases in adult Europeans and Americans. These patients were not all fresh cases. The age and time of onset were calculated from data supplied by parents. Severity of the condition was classified as slight, moderate and severe. As naturally more severe cases would be referred for consultation this classification would not show a true picture of degrees of severity of affected cases. It is certain that a large number of slight cases are not referred, or probably not even diagnosed.

The 73 cases that are being reviewed in this paper were from my own private clinic, and therefore they would be from the first and second class homes. I have been associated with Children's Hospital of Bongah Nikookari for the last 14 years. This is a charity hospital catering for children of the lowest income group, and during that time, I have personally not seen more than 10 cases.

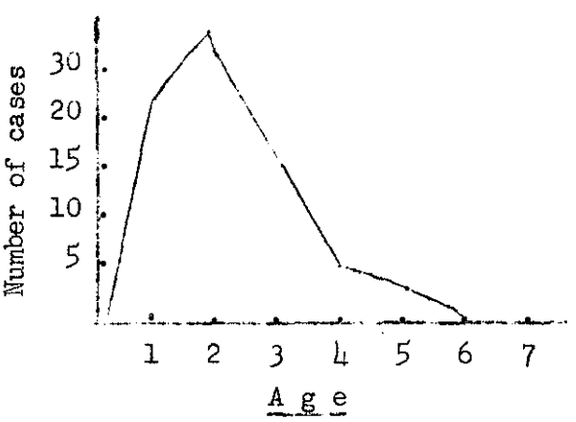
2. SEASONAL INCIDENCE

Cases occur throughout the year. The only month when the number of cases was unusually large was in June 1957 when eight new cases had occurred.

3. AGE OF ONSET IN IRANIANS

The youngest patient was five months old, and the oldest five years. Six cases were less than six months. The table and graph below shows the age incidence :-

Ages	Numbers
0 - 1	21
1 - 2	28
2 - 3	15
3 - 4	5
4 - 5	4
5 - 6	0



4. SEVERITY OF THE CONDITION

17 cases were classified as slight, 31 as moderate and 25 cases severe.

5. DISCUSSION

Number of cases under review is not statistically significant to draw definite conclusions, but one can speak of clinical impressions. We can say that the condition is not rare in Iran and although it is not yet an important national health problem there is a danger that it may become so. As far as clinical susceptibility is concerned the low income group is fairly immune to the disease. The middle and upper classes are much more susceptible. Foreigners are definitely more vulnerable, and surprisingly enough attacks the adults. This cannot be explained by the larger number of foreign adults, as there are also a considerable number of foreign children. There are at least three schools in Teheran established exclusively for foreign children's education. In one school that has a foreign child population of about 300 : since 1951 there has been only one case of polio in an American kindergarden pupil aged 4, who had been in Iran only six months.

Most of the foreigners who contracted the disease had been in the country for a few months, one of them a teacher at a school where foreign children alone are accepted. No case of polio occurred at the school following the teacher's illness.

Geographical distribution of the disease in the country cannot be ascertained with such a small number of cases. A nation wide survey has to be made. Cases coming to the capital for treatment are not a true index of the situation in the country as there are a number of points to consider.

1. Most cases would naturally be from Teheran itself.
2. As the country is large, proximity to the capital would play an important part.
3. Obviously the higher income group are more likely to seek treatment at the Capital.

Unless the condition is notifiable in at least all the major towns we shall not be able to make even a guess at the geographical incidence.

Age distribution is interesting. Under five months and over five years are apparently immune. 67% of cases occurred between the ages of five months to two years, and 87% below the age of three years.

For some years efforts have been made at the Pasteur's Institute of Teheran to determine the situation of poliomyelitis virus antibodies in the blood of Iranian children. The majority of samples tested were from the low income group. At birth polio antibodies were detected in all the samples examined. On following up these children it was discovered that within six months this maternal immunity fades, but by the second year of life in nearly 80% of the cases antibodies are found. This closely corresponds with clinical susceptibility as discussed above.

I am grateful to Dr. Baltazard, Director of Pasteur's Institute for giving me the above information. For future investigation with the co-operation of Dr. Bahmaniar of Pasteur's Institute we have decided on the following plan.

All cases of fresh polio that is not later than seven days after the onset of paralysis, will be sent to the Institute for the following examinations :-

1. Examination of the patient's faeces for virus isolation.
2. Patient's blood for antibodies.
3. The types of antibodies present in the maternal blood.

The results will be published as soon as we can collect sufficient number of cases.

Fortunately or unfortunately there is a big scare amongst the high income group regarding the danger of this illness to their children. Doctors are often asked about the advisability of vaccination. I think we can tell them that at present the children below the age of five should be vaccinated, and probably the best time for vaccination is between the third and fourth months. There is no doubt that with improved sanitation the pattern of behaviour of poliomyelitis in Iran will change, and we probably shall see more cases in older children and have epidemics.

If the condition should become notifiable then it would be easier to predict the future course of events.

At present those mostly in danger in Iran are foreigners who are coming in increasing numbers to the country. For foreigners travelling to this part of the world, vaccination against poliomyelitis should be considered as important as typhoid and smallpox. The majority of doctors in Europe and America are not aware of this state of affairs in the Middle East, and it would be advisable to enlighten them.

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