An Outbreak of Mumps Meningoencephalitis in Sangli District

Our institute receives patients from in and around Sangli district. We report sharp rise of incidence of mumps meningoencephalitis at our institute during December 2005 to January 2006. Total of 10 cases of mumps meningoencephalitis were admitted. The earliest case was seen in the first week of December and last case was seen in the 3rd week of January. The age group involved was 3-13 yrs. (mean being 6.65). It included 9 boys and 1 girl clearly showing male predominance(1). All the 10 patients were vaccinated according to the National Immunization Schedule and 9 patients were additionally vaccinated with MMR vaccine at 15-18 months. Information regarding vaccine strain, batch no. could not be obtained as the patients were vaccinated at different places. The clinical features included fever greater than or equal to 39°C (90%), vomiting (90%), headache (70%), unilateral parotitis bilateral parotitis (50%), (50%), maculopapular rash (20%), generalized tonic-clonic convulsions (10%). The investigations included raised serum amylase (30%), USG abdomen showing hepatomegaly (30%), fissural enhancement on CT scan (20%). There was no case below 1yr; 4 cases between 1 to 5 yrs; 5 cases between 6-10 yrs; and one case between 11 to 14 yrs. Initial CSF examination showed lymphocytic predominance with cell count range between (per cubic mm): 70-100 in 1 case, 100-150 in 2 cases, 150-200 in 2 cases, 200-300 in 2 cases, 300-500 in 1 case and 500-700 in 3 cases, mean being 314.2. Subsequent CSF examination showed a progressive decrease in the total cell count. Initial protein ranged between 28 to 180 mg% (mean being 66.1 mg% with range 28-49 mg% - 4 no.of cases, 50-99 mg% - 4 no. of cases,100-200 mg% - 2 no. of cases). Initial sugar ranged between 40-93 mg% (mean being 59.2 mg%) with CSF / blood glucose ratio being 0.64%. There was no death. The patients are being followed up and did not develop any neurological deficit till date.

The epidemiology of mumps in India and the magnitude of the problem are not fully appreciated(2). Outbreaks occur at interval of 5-10yrs(2). Mumps continue to occur in epidemic proportions despite the availability of an effective vaccine. Finland became the first documented country to be free of indigenous mumps and rubella with the use of national 2 dose trivalent MMR vaccination program, free of charge and on a voluntary basis, which was launched in 1982(3). We are reporting this case study because, though 9 out of 10 of our patients were vaccinated with MMR vaccine they developed serious complication of mumps like meningoencephalitis.

The national program does not use MMR, but only measles vaccine. The IAP has recommended inclusion of MMR vaccine in the immunization schedule(4).

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