

Status of Poliomyelitis-1996 After "Pulse Polio Immunization Programme" Sentinel Center Experience

Kalawati Saran Children's Hospital (KSCH), New Delhi serves as a sentinel center for surveillance of Poliomyelitis for Delhi as well as the neighbouring states of Uttar Pradesh, Haryana and Rajasthan. Upto 93% of total reported cases from Delhi are seen at KSCH, and regular line list of polio cases indicating age, sex, residential address, immunization status and clinical presentation is sent to the Ministry of Health and Family Welfare.

In spite of more than 90% OPV coverage, poliomyelitis continues to be major public health problem and has been the leading cause of disability in children. Committed to the goal of eradication of Poliomyelitis by 2000 AD, Pulse Polio Immunization Programme (PIP) was launched in Delhi in the year 1994 and followed all over India in the year 1995 and recently in December 1996 and January 1997.

In the previous years, the total number of Polio cases attending KSCH had shown a peak trough pattern with peaks in alternate years (1621 cases in 1990, 1390 cases in 1992 and 1062 in the year 1994)(1). After the first round of all India PPI in 1995, in spite of expected peak in the year 1996 there was marked decline in number of cases coming to KSCH from all states including Delhi (Table I). Only 369 cases were reported in the year 1996 which is the lowest number ever seen at KSCH in the last 20 years. There is almost a 50% decline in the number of cases from Uttar Pradesh and Haryana in the year 1996 as compared to 1995. Delhi has shown 70% decline in 1996

TABLE I- Total Number of Cases Attending KSCH (1994-1996)

State	1994	1995	1996
Delhi	435	221	133
Uttar Pradesh	424	351	189
Haryana	135	71	42
Rajasthan	16	13	1
Bihar	42	31	4
Madhya Pradesh	7	3	-
Others	3	-	-
Total	1062	690	369

as compared to the year 1994. A similar decline has been seen in the all India figure, from 4792 cases in 1994 to 3263 cases in 1995 and 1005 cases in the year 1996 (Unpublished, Immunization Mission, Ministry of Family Welfare, Nirman Bhavan, New Delhi).

The epidemiology of the disease over the years has not shown any significant change. Males have always outnumbered females in the ratio of 1.3:1 and upto 75% cases continue to be affected between the age group of 6 months to 2 years. Children above 3 years have varied between 5-7%. There has always been a seasonal increase in the number of cases from June onwards with the peak invariably in the month of August related to rains in Northern India. In the year 1996, a significant increase was noted in the months of August (76 cases) and September (84 cases). Nearly 43% cases came in these two months only [Table II].

Type I polio virus has been the commonly isolated virus from stool samples of patients who reported within four weeks of illness. A similar trend was seen in the year 1996 also, but there has been an increase in the non polio virus isolation from 5.3% in 1991 to 22% in 1996(1).

TABLE II—*Month-wise Distribution of Poliomyelitis Cases*

Month	1994	1995	1996
January	49	19	11
February	57	11	09
March	43	21	16
April	39	21	04
May	88	26	11
June	93	42	10
July	145	97	33
August	202	123	76
September	161	107	84
October	90	88	47
November	42	68	28
December	53	67	40
Total	1062	690	369

An increase has also been noted in the fully immunized cases from 22% in the

year 1994 to 27% in 1996. Forty per cent children did not take even a single dose of routine OPV but 50% among them did take 2 doses of pulse polio because of the mass publicity of the programme. To conclude, PPIP has made a definite dent in the occurrence of polio cases as experienced at our center.

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REFERENCE

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Splenic Infarct in Falciparum Malaria

Splenic infarction is a rare finding in cases of falciparum malaria(1). We report here two cases of falciparum malaria, with splenic infarction, which were diagnosed by ultrasonography.

Two children (7 yr old girl and 3 yr old boy) were admitted with history of fever for more than ten days and pain in abdomen. Both children had received chloroquine, before coming to us but without any relief of fever. On examination they had high grade fever, anemia and tender

splenomegaly with liver enlargement. Peripheral blood smear for falciparum malaria was positive in both of them. Ultrasonography (USG) of abdomen revealed splenic infarct in both. The girl had three to four splenic infarcts of size 10 to 14 mm. A dramatic response was seen in both after administration of oral quinine. There was subsidence of fever but the splenomegaly persisted in both the cases even after a month when they were last seen in the follow up clinic.

The possible factors contributing to splenic infarction in falciparum malaria are tissue avascularity following rapid splenomegaly and increased stickiness of the parasitized RBCs(2). USG is not performed routinely in cases of splenomegaly