

## Should We Go For Ipv Along With Opv Now As Poliomyelitis Is On The Verge Of Eradication?

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### Abstract

Seeing the grand success of intensive pulse polio program, Poliomyelitis seems to be on the verge of eradication<sup>1</sup>. But if it has to be eradicated from India, we have to think of preventing vaccine associated Polio paralysis cases and also we have to prevent Polio paralytic cases due to vaccine failure as, there are more cases of paralytic Polio found which were associated with excretion of virus in the stools of affected individuals. About 280 cases of vaccine associated Polio paralysis cases were reported in 1998 and even more on 1999, also today<sup>2</sup>.

Then why not to go for IPV along with OPV at least during the last phase of eradication of Poliomyelitis?

**KEYWORDS:** Poliomyelitis, OPV, IPV, eradication

Seeing the grand success of intensive pulse polio program, Poliomyelitis seems to be on the verge of eradication. But if it has to be eradicated from India, we have to think of preventing vaccine associated Polio paralysis cases and also we have to prevent Polio paralytic cases due to vaccine failure as, there are more cases of paralytic Polio found which were associated with excretion of virus in the stools of affected individuals. About 280 cases of vaccine associated Polio paralysis cases were reported in 1998 and even more on 1999, also today.

Then why not to go for IPV along with OPV at least during the last phase of eradication of Poliomyelitis.? It has been also found that herd immunity of OPV is myth rather than being significant.

It has also been found that with giving modified improved IPV, potency problem will be taken care of<sup>3</sup>. It has got enhanced potency and better antigen stabilization than classical sabin vaccine<sup>4</sup>. If we start IPV along with OPV, there is every possibility of prevention of vaccine associated Polio paralysis cases as shown in some studies. The enhanced potency of IPV may induce sufficient immunity to prevent wild virus from getting foothold in the intestine of immunized individuals<sup>5,6</sup>. The enhanced potency of IPV has further advantage of high efficiency of 100% with 2nd dose and 90% with one dose.<sup>7</sup>

Now the question comes of cost and feasibility of the vaccine IPV. Has IPV got logistical problem of giving injections? No, not at all. The problem does not arise as injectable vaccines are given through our UIP. So modified potency vaccine IPV can be included in UIP and people may not have any objection if explained properly the importance of IPV (Injectable vaccine) and in any case they are taking DPT injections for their children. So also no more visits will be required if it is incorporated with UIP along with other vaccines.

Now the most important question is of cost effectiveness. The cost of IPV is much higher than the cost of OPV. However the cost of cold chain system, vaccine vial monitor, cost

of treating VAPP cases are taken in to consideration , the cost of 2 doses of IPV may not be that higher .

Thus to begin with 2015 , we should include IPV along with OPV. IPV should be given at 6, 14 weeks then 2 doses of OPV at 1.5 and 4 years of age and 3 rounds of opv every year will definitely take care of VAPP. And also poor efficiency of OPV alone . Thus once VAPP cases comes to nil or negligible, total change to IPV in UIP can be considered depending upon the situation

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