

Unnecessary Injections and Poliomyelitis in Pakistan

H. V. Wyatt (Public Health Medicine, University of Leeds, 30 Hyde Terrace, Leeds LS2 9LN, UK.)

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Pakistan reported 1046 cases of paralytic poliomyelitis in 1992. In 1993, 78% of all children received three doses of Oral poliovaccine (OPV)², but there were 1115 cases to the end of September.¹ As it is not feasible to make house to house surveys to check, we do not know how many children with polio fall outside the reports from surveillance centers which are mainly large hospitals. Hospitals have a few records and staff do not ask questions about injections given prior to paralysis.

In December 1993, I examined 29 children with polio at a camp in a small town in North West Frontier Province and inspected records of 226 polio children at two clinics in Peshawar, Pakistan. Children without injections during the prodromal period had an equal chance of paralysis in their left and right legs (Table 1), as reported previously in India.³ However, of the 152 children with suitable records, 136 (89%) had received an unnecessary injection 48 h or less before paralysis and there was almost complete correlation of paralysis and the site of injection. Children who had received an injection developed in 97% of the injected legs compared with only 7% of the legs which were not injected (Table 2). Injections are rarely given in the arm: 2% of the children had arm paralysis only and another 3% had paralysis involving arms and legs.

In areas where wild poliovirus circulates, some children are taken to a doctor or other health worker or healer, with a fever caused by the poliovirus infection which has already reached the spinal cord. In these children, unsterile, unnecessary injection of antibiotics, etc., given for fever can cause aggravation of polio within 48 h of the injection, changing non-paralytic attacks to frank paralysis which, typically, occurs only in the injected limb.³ If the injection is given in a limb which is already programmed for paralysis, then that paralysis is made more severe and the limb is less likely to recover than one without injections.³ The injections must cause inflammation in the muscle which causes changes in the corresponding sections of the spinal cord. In Peshawar, as only 7% of uninjected legs were paralysed, most residual paralysis probably results from infections with polioviruses of low virulence: and unnecessary injections change what would be non-paralytic attacks into paralysis. In some of the Pakistan children, legs without injections may have recovered from initial paralysis or have so slight a paralysis that the children were not brought to rehabilitation clinics.

Of 190 children attending a Rehabilitation Center in Peshawar, 86% had received an injection prior to paralysis.⁴ The correlation of injection and paralysis was very similar to that reported in this paper. Muscle strengths of injected limbs were much weaker than those of uninjected limbs were much weaker than those of uninjected limbs, as found in Indian children.³

In Pakistan Greetham also found that 60% of 1279 Afghan refugee children with residual paralysis caused by polio had received intramuscular injections just prior to paralysis.⁵

Conclusion

If unnecessary injections given for fever in babies and young children could be reduced, polio paralysis too would be substantially reduced. Unnecessary, unsterile injections spread hepatitis viruses and cause paralytic polio and injection abscesses. Every effort should be made to educate parents and doctors of the catastrophic consequences of unnecessary injections.^{6,7}

Unfortunately, adults expect and want injections. For health workers, injections are a major source of

income.

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