Intended for healthcare professionals

Rapid response to:

**Feature** Polio

# Polio eradication: a complex end game

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# Rapid Response:

## Re: Polio eradication: a complex end game

Eradication of polio by vaccination? Part 3

Another important consideration in attempts to eradicate poliomyelitis by vaccination is the contamination of polio vaccines by chimpanzee coryza virus, renamed respiratory syncytial virus (RSV).

Morris et al. (1956. Recovery of cytopathogenic agent from chimpanzees with coryza. Proc Soc Exp Biol Med; 92: 544-549) described monkey cytopathogenic agent that produced acute respiratory illness in chimpanzees at the Walter Reed Army Institute of Research and named it chimpanzee coryza virus (CCA).

Chanock et al. (1957. Recovery from infants with respiratory illness of vius related to chimpanzee coryza agent (CCA). I. Am, J Hyg; 66: 281-290) wrote on the association of a new type of cytopathogic myxovirus with infantile croup.

Chanock and Finberg (1957. Recovery from infants with respiratory illness of virus related to chimpanzee coryza agent. II. Am J Hyg; 66: 291-300) reported on two isolations of similar agents from infants with severe lower respiratory illness (bronchopneumonia, bronchiolitis and laryngotracheobronchitis). The two viruses were indistinguishable from an agent associated with the outbreak of coryza in chimpanzees (CCA virus) studied by Morris et al. (1956). A person working with the infected chimpanzees subsequently experienced repiratory infection with a rise in CCA antibodies during convalescence. They proposed a new name for this agent “respiratory syncytial virus” (RSV). RSV has spread via contaminated polio vaccines like a wildfire all over the world and continues causing serious lower respiratory tract infections in infants.

Beem et al. (1960. Association of the chimpanzee coryza virus agent with acute respiratory disease in children. NEJM; 263 (11): 523-539) isolated the virus from inpatients and outpatients in the Bobs Robert Memorial Hospital for Children (University of Chicago) during the winter of 1958-1959, in association with human acute respiratory illness. The virus (named Randall) had an unusual cytopathic effect characterised by extensive syncytial areas and giant cells. Soon, 48 similar agents were isolated from 41 patients. There were antigenic similarities between RV and Long and Sue strains of CCA; it produced illness in humans (the age range 3 weeks to 35 years): acute respiratory diseases, croup, bronchiolitis, pneumonia and asthma ranging from mild coryza to fatal bronchiolitis. The isolatation rate (46%) was particularly high among infants below six months.

In Australia, Lewis et al. (1961. A syncytial virus associated with epidemic disease of the lower respiratory tract in infants and young children. Med J Australia: 932-933) and Forbes (1961. Ibid: 323-325) isolated further viral specimens identical with CCA.

Prior to July 1960, the influenza and parainfluenza viruses predominated in infant epidemic respiratory infections; in July 1961 the pattern changed abruptly with sudden increase in bronchiolitis and bronchitis, infrequent before. 58% were under 12 months, and patients under 4 years predominated. Infants with bronchiolitis and severe bronchitis yielded RCA, not previously isolated. Deaths have occurred.

Rogers (1959. The changing pattern of life-threatening microbial disease. NEJM; 261 (14): 678-683) wrote that life-threatening microbial infections continued occur despite antibiotics. Microbial agents have also changed in 1957-1958 compared with the streptococcal predominance during 1938-1940).

An “impressive” increase in the number of life-threatening enterobacterial infections has occurred. “During the preantimicrobial era most infections were acquired before admission to hospital, while in the postantimicrobial era the vast majority of infections arose in hospital.”

“Mycotic infections, especially with Candida albicans, became a major problem. Unusual serious generalised clostridial infections arose and antibiotics have not dramatically altered the risk of, or mortality resulting from, endogenous infections” in sick, hospitalised patients.

Rogers’s (1959) observations on antibiotics ineffectiveness, and new serious additional problems outlined above, fell on deaf ears.

Levy et al. (1997. Respiratory syncytial virus infection in young infants and young children. J Family Practice; 45 (6): 473-481) wrote “Respiratory syncytial virus (RSV) is the most prevalent cause of lower respiratory tract infections (LRTI) in infants and young children. Infections with RSV is a major health problem during early childhood and primary RSV infections occurs most often between the ages of 6 weeks and 2 years. Approximately one half of all infants become infected with RSV during the first year of life and nearly all infants by the end of their second year of life…in the US each year, approximately 100,000 children are hospitalised at an estimated cost of $300 million. More than half of those admitted for RSV bronchiolitis are between 1 and 3 months of age.” [Clearly implicating vaccination.]
And, “In the US each year, approximately 100,000 children are hospitalised at an estimated cost of $300 million. More than half of those admitted for RSV bronchiolitis are between 1 and 3 months of age.”

RSV vaccine developed in late sixties clearly failed. Fulginiti et al. (1969). Respiratory virus immunizations. I A field trial of two inactivated respiratory virus vaccines…Am J Epidemiology; 80 (4): 435-448) and others showed the vaccine ineffective, inducing exaggerated, altered clinical response…causing RSV illness requiring hospitalisations among vaccines and delayed dermal hypersensitivity.

Simoes (1999. Respiratory syncytial virus infection. Lancet; 354: 847-852) wrote “Since it was identified as the agent that causes chimpanzee coryza in 1956, and after its subsequent isolation from children with pulmonary disease in Baltimore, USA, respiratory syncytial virus (RSV) had been described as the single most important virus causing acute respiratory-tract infections in children. The WHO estimates that of the 12.2. million annual deaths in children under 5 years, a third are due to acute infections of the lower respiratory tract. Streptococcus pneumoniae, Haemophilus influenzae, and RSV are the predominant pathogens… vaccinated children were not protected from subsequent RSV infection. Furthermore, RSV-naïve infants who received formalin-inactivated RSV vaccine, and who were naturally infected with RSV later, developed more severe disease in the lower respiratory tract than a control group immunized with a trivalent parainfluenza vaccine”.

Data from ten developing countries, with intense polio vaccination, showed RSV the most frequent cause of

LRT infections (70% of all cases).

Polio vaccines are not only ineffective in preventing paralysis, they carry the risk of contamination with many harmful adventitious microorganisms, of which only some monkey viruses have been researched in more detail. Many other potentially dangerous microorganisms remain unaddressed.

**Competing interests:** No competing interests

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