

Chany C, Lépine P, Lelong M, Le-Tan-Vinh, Satgé P & Viral J. Severe and fatal pneumonia in infants and young children associated with adenovirus infections. *Amer. J. Hygiene* 67:367-78, 1958. [Service des Virus, Institut Pasteur & Hôpital St.-Vincent-de-Paul, Paris, France]

During an epidemic of acute respiratory disease in young children in December 1955 and sporadic cases up to February 1957, we recorded 23 cases of acute pneumonia of which four were fatal. The associated clinical manifestations were given and the pathological lesions described in the necrotic areas found in the bronchi. Specific cellular lesions of adenovirus were detected, identical to those seen in tissue culture. This adenovirus inclusion pneumonia seemed to be comparable to the Goodpasture inclusion pneumonia reported in 1939¹ [The SCJ® indicates that this paper has been cited in over 150 publications since 1958]

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"I was appointed as an intern to the Saint-Vincent-de-Paul Hospital in 1953 in the pediatric department headed by M. Lelong. Our institution is descended directly from the one founded by Saint Vincent de Paul himself, who created the first foundling home for children in the seventeenth century.

"I first worked directly with Satgé and Vialatte, who were responsible for the care of the abandoned children. As a medical student, I was particularly interested in viral diseases and had just finished a special course in fundamental virology at Pasteur Institute. I was impressed by a number of epidemics of unknown etiology which occurred in this relatively close children's community, especially in the winter months. As a rule, we spoke about virus infections when we were not able to find any other explanation for the diseases we encountered. "Equipped with my fresh and limited knowledge, I decided to try to label these unknown diseases. My decision was also supported by the observations of Huebner

and Rowe² and Hilleman et al.,³ who described, at that time, adenoviruses as possible causes for acute respiratory diseases.

"For a period of 15 months between December 1955 and February 1957, I collected specimens during my rounds in the morning and worked on them in the afternoon at Pasteur Institute in Lépine's laboratory. The first epidemics in December 1955 led us directly to adenovirus pneumonia, with four fatal cases. In most instances, viral pneumonia was associated with other symptoms that we had listed, especially encephalitis. At that time, Barsky (with whom I worked at Pasteur Institute) and I discovered that adenoviruses were responsible for a specific cytopathic effect in tissue culture. We focused our attention on the detection of these lesions *in vivo*. In association with our pathologist, Le-Tan-Vinh, the lesions were indeed found in the necrotic areas of bronchi, which therefore enabled us to support more directly the role of adenoviruses.

"In further studies we explored possible reasons for such an unusual gravity of the disease in this age group. The association with whooping cough or measles probably worsened the disease. In one case, chlorpromazine therapy and hibernation, which effectively decreased the fever, aggravated the infection, as we later learned from Lwoff's work.⁴

"The study of these foundling children and the necessity to survey such a vulnerable population led us later to another interesting discovery, namely, the description of the hemagglutinating and hemolytic properties of measles virus, which enabled us to diagnose rapidly this frequently occurring and dangerous disease.^{5,6}

"Presently, abandoned children are no longer kept for long periods in the hospital and are placed in foster families as soon as possible. The studies we reported contributed certainly in part to the decision of the authorities to end long-term internment of orphans in institutions.

"The interest which arose from our publication is perhaps linked to the unexpected nature of our observations since adenovirus infections were considered harmless at that time. Furthermore, it resolved the etiological problem of Goodpasture's inclusion pneumonia."

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