

# Adenoviruses are Linked to RS Onset

BY DAVID SILVER

LONDON — Adenoviruses, hitherto not generally associated with the development of Reye's Syndrome (RS), are now suspected of being "important agents in initiating the syndrome in the very young child," say pediatric researchers from Vanderbilt University Medical Center, Nashville.

Impelled by the isolation of an adenovirus from the liver of an eight-month-old infant who died of RS, the team of physicians, headed by Dr. Kathryn M. Edwards, reviewed the records of 34 RS patients admitted over a 10-year period ending December 1982.

Of the six subjects younger than a year, three demonstrated positive adenoviral cultures and increased serological responses. The other three patients were not cultured.

"Because adenoviruses so often infect young children," noted Dr. Edwards, professor of pediatrics at Vanderbilt, "we feel they should be thoroughly studied to see what the relationship is between the syndrome and these viruses." Recent unpublished studies by Dr. Edwards and others on the team have demonstrated that 46% of 117 adenoviral isolates cultured from children in the vaccine clinic were found in those under a year old and another 36% came from those between one and two years of age.

The RS diagnostic criteria fulfilled by the three adenovirus-bearing patients were "cerebral dysfunction" with seizures and apnea after a viral prodrome.

The two survivors have developmental disabilities. Since RS was not initially suspected, serum ammonia levels, serum lactate determinations, and plasma amino acid profiles were not performed, but, the investigator said, cerebrospinal fluid studies done "did not support the diagnosis of encephalitis."

The positive viral cultures found in the older RS patients were for influenza B. The adenoviruses found in the three infants were types 1, 2, and 7.

## Similar British Results

In their report in the *American Journal of Diseases of Children* (139: 343-346, 1985), the investigators conclude that the fourfold serologic response in two of the children and the isolation of the virus from the liver of the third "strongly suggest that adenovirus in these three patients was associated with invasive disease." A very recent British report of a similar finding of adenoviruses in children of the same age with RS supports this view.

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