

Recombinant hepatitis B vaccine and the risk of multiple sclerosis A prospective study

NEUROLOGY, September, 2004;63:838–842

Miguel A. Hernán, MD; Susan S. Jick, DSc; Michael J. Olek, DO; Hershel Jick, MD
Dr. Hernán is from the Department of Epidemiology, Harvard School of Public Health

FROM ABSTRACT:

Background: A potential link between the recombinant hepatitis B vaccine and an increased risk of multiple sclerosis (MS) has been evaluated in several studies, but some of them have substantial methodologic limitations.

Results: The analyses include 163 cases of MS and 1,604 controls.

The odds ratio of MS for vaccination within 3 years before the index date compared to no vaccination was 3.1 (310% increased risk).

No increased risk of MS was associated with tetanus and influenza vaccinations.

Conclusions: These findings are consistent with the hypothesis that immunization with the recombinant hepatitis B vaccine is associated with an increased risk of MS, and challenge the idea that the relation between hepatitis B vaccination and risk of MS is well understood.

THESE AUTHORS ALSO NOTE:

"More than 350 million people worldwide are chronically infected with the hepatitis B virus."

"Of these, 65 million will die from cirrhosis or liver cancer."

"The hepatitis B vaccine is over 95% effective in preventing chronic hepatitis B infection."

In 1996, about 200 cases of CNS demyelinating disorders following hepatitis B vaccination were reported in France and in 1998 the French government suspended routine immunization of preadolescents in schools.

The potential link between vaccination against hepatitis B and an increased risk of multiple sclerosis (MS) or demyelinating disease has since been evaluated in seven studies.

These authors also evaluated information on vaccination against tetanus and influenza, the two most common vaccinations in this population.

"The proportion of cases that received at least one hepatitis B immunization during the 3 years before the date of first symptoms was 6.7%, compared with 2.4% of controls. The OR of MS for vaccination vs no vaccination was 3.1."

[This means that there was a 310% increased risk of being diagnosed with MS if one was vaccinated with hepatitis B as compared to those who were not vaccinated. Or, one is approximately three times more likely to develop MS if vaccinated with Hepatitis B compared to not being vaccinated with Hepatitis B].

"No increase in the risk of MS was observed for vaccination against influenza and tetanus."

DISCUSSION

"We estimated that immunization against hepatitis B was associated with a threefold increase in the incidence of MS within the 3 years following vaccination."
[WOW]

"Our study cannot distinguish whether the hepatitis B vaccine hastens the onset of MS in persons destined to develop the disease years later, or whether it causes new cases of MS in susceptible individuals."

"Any decision concerning hepatitis B vaccination needs to take into account the large benefits derived from the prevention of a common and potentially lethal infection."

"Two French studies found about a 1.5-fold increase in the risk of a first episode of CNS demyelination during the 2 months following hepatitis B vaccination."

The hepatitis B vaccine "contains an adjuvant (aluminum hydroxyphosphate sulfate), a mercury-based preservative (thimerosal, eliminated from recent formulations), and yeast proteins (up to 5%), but these components have not been separately studied in relation to the risk of MS." [The aluminum can't be good for anyone. Read Health And Nutrition Secrets That Can Save Your Life by Russell Blaylock, MD, 2002].

KEY POINTS FROM DAN MURPHY

- 1) More than 350 million people worldwide are chronically infected with the hepatitis B virus.
- 2) Of these, 65 million will die from cirrhosis or liver cancer.
- 3) The hepatitis B vaccine is over 95% effective in preventing chronic hepatitis B infection.

- 4) Immunization against hepatitis B is associated with a threefold increase in the incidence of MS within the 3 years following vaccination.
- 5) In 1998 the French government suspended routine immunization of preadolescents with hepatitis B because of the increased risk of CNS demyelinating disorders.
- 6) The hepatitis B vaccine from this study contained aluminum hydroxyphosphate sulfate, the mercury-based preservative thimerosal, and yeast proteins. Thimerosal has since been removed from Hepatitis B vaccinations.