Another study shows vaccines do not cause autism

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Quinn, an autistic boy, and the line of toys he made before falling asleep. Repeatedly stacking or lining up objects is a behavior commonly associated with autism. Credit: Wikipedia.

(Medical Xpress)—A team of researchers with affiliations to several institutions in the U.S., has conducted a study at the University of Texas Southwestern Medical Center in Dallas, Texas, looking into the possibility of vaccines or the preservative thimerosal causing autism

spectrum disorders (ASDs) and has found no such link. In their paper published in *Proceedings of the National Academy of Sciences,* the team describes their study using Rhesus monkeys and what they found as a result of their work.

For several years parents and citizen groups have claimed that vaccinations (and/or a preservative used to keep them fresh) given to infants and children causes ASDs , despite the lack of evidence. Such suspicions got their start due to the onset of a disorder in many cases, shortly after a vaccination was given—most scientists believe such instances were merely coincidences. Over the same time span, many studies have been done to determine if such claims are true, and only one, by a now discredited doctor, found any validity to the argument. To pacify worried parents, the preservative thimerosal has been mostly phased out. In this new study the team ran an inoculation schedule on a large group of rhesus monkey infants to see if they developed any of the symptoms of an ASD.

The researchers inoculated 79 of the male monkeys (whose brains and physiology are very similar to humans), varying the age at which they were given and a combination of vaccines, and of course with or without themersol. They also injected a control group with a saline solution. Some of the monkeys got the same regimen as children in the U.S. received during the 1990's or in 2008. Afterwards, all of the monkeys were monitored to see if they developed ASD type symptoms—none did. The researchers also killed some of the monkeys in order to perform brain autopsies, once again looking for hallmarks of an ASD, and once again, none were found.

The team reports that no evidence of any ASD was found in any of the monkeys, and thus rejects the hypothesis that vaccines alone or with thimerosal are the cause of a rise in the number of children diagnosed with such disorders over the past several decades.

More information: Administration of thimerosal-containing vaccines to infant rhesus macaques does not result in autism-like behavior or neuropathology, Bharathi S. Gadad, DOI: 10.1073/pnas.1500968112

Abstract

Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder. Some anecdotal reports suggest that ASD is related to exposure to ethyl mercury, in the form of the vaccine preservative, thimerosal, and/or receiving the measles, mumps, rubella (MMR) vaccine. Using infant rhesus macaques receiving thimerosal-containing vaccines (TCVs) following the recommended pediatric vaccine schedules from the 1990s and 2008, we examined behavior, and neuropathology in three brain regions found to exhibit neuropathology in postmortem ASD brains. No neuronal cellular or protein changes in the cerebellum, hippocampus, or amygdala were observed in animals following the 1990s or 2008 vaccine schedules. Analysis of social behavior in juvenile animals indicated that there were no significant differences in negative behaviors between animals in the control and experimental groups. These data indicate that administration of TCVs and/or the MMR vaccine to rhesus macaques does not result in neuropathological abnormalities, or aberrant behaviors, like those observed in ASD.