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MMR refers to measles, mumps, and rubella, those are different diseases caused by three different viruses that affects pediatrics in early ages. So that MMR vaccine given ; the first dose is usually given between 12 - 15 months of age and the second at age 4 - 6 years [1].

Autism spectrum disorder (ASD) is a group of developmental disabilities that can cause significant social, communication and behavioral challenges, and the first sign of ASD appear between 15 – 18 months of age [2]. American Academy of Pediatrics stated that” because the MMR vaccine is first given at age 12-15 months, and the first signs of autism often appear at 15-18 months of age, concerns have been raised about a possible link between the vaccine and the development of autism” [3].

The claim that there is a relation between vaccination and ASD onset are related to 1998 when the Lancet article by Wakefield et al. appeared [4] .(the paper was retracted in 2010 because of ethical and methodological problems) [5].

Thereafter, other published reports suggested a link between the measles–mumps–rubella vaccine (MMR) and ASD, and concerns emerged that thimerosal, which is included in vaccines as a preservative may be responsible to increase ASD onset. Other studies, however, that examined retrospective data and rejected any such link between ASD onset and MMR vaccines [6].

A case control study had conducted in 2012 in Japan demonstrated that” there were not any convincing evidences that MMR vaccination and increasing the number of vaccine injections were associated with an increased risk of ASD in a genetically homogeneous population. Therefore, these findings indicate that there is no basis for avoiding vaccination out of concern for ASD” [6].

In conclusion, many studies demonstrated that MMR vaccine could increase the risk of ASD and other studies rejected that relationship so many new studies are needed to clarify the relation between ASD and MMR vaccine.

References:

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