Measles-Mumps-Rubella immunisation, autism and inflammatory bowel disease: update

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Early last year we reported[1] on a study by Wakefield and colleagues which suggested there may be an association between measles containing vaccine, inflammatory bowel disease (IBD) and autism.[2] The evidence for either association was very weak[1] and the study was conducted on a highly selected group of subjects. Since then several epidemiological investigations have found no evidence for any association with autism and/or IBD.[5,6,7,8,9] Also, specific virological assays in patients with IBD, the proposed aetiological link for autism after measles-mumps-rubella (MMR) vaccination, have not detected measles virus.[3,4] Following the publication of the Wakefield study[2] however, there has been a measurable decrease in the uptake of MMR in the United Kingdom (UK).[10]

In June this year two further reports were published that provide no support for a causal link between measles vaccine and autism.[11,12] The Working Party on MMR Vaccine of the UK's Committee on Safety of Medicine's study[11] evaluated the reports of autism, Crohn's disease, and similar disorders developing after MMR or MR vaccination, collected by a firm of solicitors. A systematic review of these cases lead the Working Party to conclude that the information available (which was of variable quality, subject to selection bias and lacked a control group) did not support the suggested causal association between measles vaccine and autism or Crohn's disease.

The second report, by Taylor et al,[12] is a population-based study that overcomes many of the limitations of the Working Party's study. Taylor's study investigated 498 children with autism born since 1979 in the North Thames Region. These children's measles vaccination status was determined from an independent register. The investigators found that:

- there was a steady increase in cases of autism over time, however there was no 'step-up' after the introduction of MMR in 1988;
- the age of diagnosis of children with autism was not dependent on when or if a child had been vaccinated;
- vaccination coverage rates in cases did not differ significantly from that for the region as a whole; and
- developmental regression was not clustered in the months after vaccination.

These results should alleviate concerns about the possibility of MMR causing autism or IBD and hopefully reassure parents and others as to the safety of MMR.

References

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