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Mothers of children with autism have different rates of cancer according to the presence of intellectual disability in their child

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Background

Autism Spectrum Disorder (ASD) and Intellectual Disability (ID) are neurodevelopmental disorders with a strong genetic component. Increasing research attention has focused on whether the genetic factors that convey susceptibility for these conditions, also influence the risk for other health conditions, such as cancer.

Conclusions

We suggest that genes increasing the risk of autism without ID and cancer have common pathways and that the genetic basis of ASD with ID differs from ASD without ID.

Aims

We compared hospital admissions and treatment/services for cancer in mothers of ASD probands to other mothers.

Methods

Using West Australian databases, we calculated the hazard ratios (HRs) of hospitalisations for cancer in case and comparator mothers.

results

In the multivariate model and compared to mothers of children with no ASD or ID, mothers of children with ASD without ID were more likely to have had an admission associated with a cancer diagnosis [HR=1.33(95% CI: 1.1, 1.7)] or a treatment or service associated with cancer [HR=1.54(95% CI: 1.1, 2.2)]. Furthermore, these HRs were significantly greater (p -values < 0.00005) than the corresponding HRs for mothers of children with ASD with ID [HR=1.05(95% CI: 0.8, 1.3) and HR= 0.97(95% CI: 0.7, 1.4)].

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