

Autoimmune disease may be linked to heightened dementia risk

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Autoimmune disease may be linked to a heightened risk of dementia, indicates a large long term study, published in the *Journal of Epidemiology & Community Health*.

Although significant, the extent of the association found was small, caution the researchers. But the findings are consistent with the theory that Alzheimer's disease may have an autoimmune component, they point out.

It has been suggested that autoimmune and inflammatory activity may have a role in the development of [dementia](#). In a bid to try and quantify this further, the researchers drew on [hospital](#) admissions data, including day cases, from 1998 to 2012 for England.

They wanted to know if admission to hospital with one of 25 [autoimmune diseases](#), including coeliac disease, multiple sclerosis (MS), [rheumatoid arthritis](#), and ulcerative colitis, was associated with a heightened [risk](#) of subsequent admission to hospital with dementia.

During the monitoring period, more than 1.8 million [people](#) were admitted with an autoimmune disease, ranging from just over 1000 people with the rare condition, Goodpasture's syndrome, in which antibodies attack the lungs and kidneys, to more than 300,000 with rheumatoid arthritis.

Compared with people admitted to hospital for other causes, those

admitted with an autoimmune disorder were 20 per cent more likely to be admitted subsequently with dementia, the data showed.

Of the 25 autoimmune diseases included in the analysis, 18 were significantly associated with dementia.

These included conditions as diverse as Addison's disease (48 per cent heightened risk); MS (an almost doubling in risk); psoriasis (29 per cent heightened risk); and [systemic lupus erythematosus](#) (46 per cent increased risk).

Most of these associations remained significant for five or more years after admission to hospital for autoimmune disease.

The type of dementia was not always documented, but the risk was 6 per cent higher for Alzheimer's disease, and 28 per cent higher for [vascular dementia](#).

The higher risk for vascular dementia might reflect associations between autoimmune disease and risk factors for cardiovascular and cerebrovascular diseases more generally, suggest the researchers.

People with autoimmune disease were 53 per cent more likely to be admitted subsequently for [coronary heart disease](#) and 46 per cent more likely to be admitted with a stroke.

A previous hospital admission for rheumatoid arthritis seemed to be protective for Alzheimer's disease, the data showed.

This might be because people with rheumatoid arthritis are more likely to take non-steroidal anti-inflammatory drugs, such as aspirin and paracetamol which have been associated with a reduced risk of Alzheimer's disease, suggest the researchers.

The excess risk of dementia was significantly higher for men than for women with MS, but for most of the other conditions the relative risks were broadly similar for both sexes.

This is an observational study so no firm conclusions can be drawn about cause and effect, added to which the research was limited only to people admitted to hospital and so unable to account for potentially influential factors.

And the researchers emphasise that the size of the associations they found was small, so the results should be taken as indicative rather than definitive: further research would be needed to confirm or refute the findings, they say.

But they speculate that autoimmune diseases or their treatment might boost the risk of circulatory disease generally, of which vascular disease is a component, in some people.

More information: Associations between specific autoimmune diseases and subsequent dementia: retrospective record-linkage cohort study, jech.bmj.com/lookup/doi/10.1136/jech-2016-207809

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