

Asian origins of Machado-Joseph disease revealed

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(Medical Xpress) -- Knowledge of a disease prevalent among Northern Territory Indigenous communities has been overhauled thanks to research contributed by the University of Sydney's Garth Nicholson.

"This advance in our understanding of the origins of Machado-Joseph Disease in Australia will hopefully contribute to the development of a cure of this debilitating condition which affects people from as young as 10-years-old," said Associate Professor Nicholson from the ANZAC Institute at the University.

Machado-Joseph Disease is a [neurodegenerative disorder](#) which causes a [progressive deterioration](#) of [muscle control](#) and coordination.

The world's highest known incidence of the disease occurs in Indigenous people of Groote Eylandt and Yirrkala in the Northern Territory.

"Elsewhere the disease has only been seen rarely and nearly always in populations from East Asia or the Azores, a Portuguese autonomous zone in the North Atlantic," Associate Professor Nicholson said.

Until now the prevailing theory has been that the disease was passed to Indigenous populations in Australia by Macassan traders who were in contact with Portuguese colonies and travelled to Australia in the 16th century and 17th century.

By comparing blood samples from sufferers worldwide, recent

international research, published in the [Archives of Neurology](#), contradicts this theory.

Instead of being associated with versions of the disease originating from Portugal, the Australian version of the disease is related to those from Japan, India and Taiwan.

"We believe the Australian variant of the disease has a [common ancestor](#), dating back 7000 years, with those seen in the Asian region," said Professor Nicholson who conducted the research on the Groote Eylandt community.

Machado-Joseph Disease currently affects an estimated 50 people in the Northern Territory with another 500 family members at risk.

Provided by University of Sydney

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