

Causes of mortality in Tourette's and Chronic Tic Disorders: A Swedish total population, 40-year longitudinal cohort study

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SUMMARY

Until recently, we knew very little about the physical health of individuals with Tourette Syndrome and chronic tic disorders, particularly in the long run. The Swedish registers, which have full coverage of the population's medical health records for over 40 years, offered a unique opportunity to examine the long-term health status of these patients.

We found that Tourette Syndrome is associated with elevated risk of metabolic and cardiovascular disorders, which are, in turn, known risk factors for premature mortality. These results are entirely novel, and we hope they will be helpful to clinicians working with this patient group. For example, our results warrant careful monitoring of risk factors by the treating physician (e.g., child psychiatrist, neurologist or even GP).

Additionally, we are hoping that an increased awareness of these conditions may motivate behavioural changes in the group of patients with TS, such as increase of their physical activity and the promotion of healthier lifestyles.

The work funded by Tourettes Action has signified the establishment of a new line of research in our research group aimed at studying the long-term health consequences of Tourette Syndrome. Our ongoing work in this area includes the study of the all-cause and cause-specific causes of mortality in TS (as initially described in the TA grant application; paper currently in preparation).

Following this study, our plans also include an extension of the study on metabolic and cardiovascular disorders. In that paper, we focused on a number of disorders, namely obesity, type 2 diabetes, and circulatory system diseases. The latter category, which included, among others, ischemic heart diseases, arrhythmia, and cerebrovascular diseases, was the most numerous (16.5% of individuals with TS had this outcome), but specific diseases were not explored in detail.

We are now planning a new study in which we aim to identify whether there are specific circulatory system diseases that deserve special attention in TS. Further, we are planning on using the same epidemiological methods that we have used in this previous work to study a range of other health-related problems in TS, including respiratory diseases and life-threatening infections. This new work will build upon the relevant work funded by TA, as well as previous work by our group on the association between TS and autoimmune diseases. Funds have been requested to other funding bodies (Tourette's Association of America, among others) to cover the expenses of these planned studies (pending resolution).

Click here for the link to a publication:

[Tourette Syndrome and Chronic Tic Disorder With Metabolic and Cardiovascular Disorders.](#) Brander G, Isomura K, Chang Z, Kuja-Halkola R, Almqvist C, Larsson H, Mataix-Cols D, **Fernández de la Cruz L.** *JAMA Neurol.* 2019 Apr 1;76(4):454-461.