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Chronic Singultus: Options in Therapy and Impact on the Quality of Life

Fach: Anästhesiologie

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The causes for chronic singultus are manifold and range from internal illnesses of the GIT and CNS to side effects of several drugs, to an unfavourable result of interventional procedures. Their consequences quite serious – including depression, insomnia, weight loss and even death from chronic exhaustion \neg , the rarity in incidence of chronic hiccups and, perhaps, the peculiarity of the symptom have yet withheld the investigation of epidemiology, aetiology and treatment on a scientifically reliable scale. Even though a respectable number of single- and few-case reports point out different therapeutic methods as promising, the current state of research lacks randomised, controlled and / or comparative analyses on large patient collectives.

Principal objective of the study on 92 hiccup patients presented in this thesis was therefore to illustrate the severity of this infliction by quantifying the impact of hiccups on the QOL and comparing it to other chronic illnesses. Further aims were to define aetiological factors like regular medication and secondary pathologies with potential influence on the generation and persistence of singultus, and to comparatively test five of the most recently discussed treatment suggestions for their hiccup-terminating power and their profile of adverse effects. It was also searched for a connection between regular alcohol consumption and the incidence of chronic hiccup.

Patients were interviewed at two defined time points, on first contact with the PCU in Heidelberg and in a follow-up interview, regarding their hiccup-specific and general anamnesis, including their medication history and drinking habits, as well as the effect of attempted treatments. The QOL associated with the patients' hiccups was measured at each interview time point with a modified version of the SF-12 survey for health-related QOL. The data procured from these interviews was retrospectively divided into two study groups, S1 (data of patients still suffering from chronic hiccups at the second interview time point) and S0 (data of patients with subsided hiccups), and tested for statistical dependence, symmetry, and a conspicuous distribution of values within these groups utilising T and chi square tests, as well as the Whitney-Mann-U, Bowker's and McNemar's test.

Both the physical and mental aspect of the health-related QOL were shown to be lower in singultus patients than in individuals suffering from other major chronic illnesses like cardiac insufficiency and cancer; they significantly increased with alleviation of the symptom and worsened with its further persistence. In accordance with the pre-existing literature, GI and CNS diseases could be confirmed as most frequent and possibly causative comorbidities in singultus patients. Comparison of the regular medication profiles of the two study groups against each other, as well as the general German population, did not reveal a significant correlation between the administration of certain drugs and symptom persistence.

Baclofen, MCP and PPI showed potential applicability for the treatment of chronic singultus in the observations of this study. 30% of patients taking Baclofen were completely cured from their hiccups; the drug moreover showed a significant positive effect on hiccupping frequency and pauses. PPI and MCP were also shown to reduce the intensity of hiccups, but did not accomplish full cessation. Whereas Baclofen therapy could lead to tiredness, muscle weakness and neurological deficits within the presented study, MCP and PPI showed no side effects.

A regular consumption of alcoholic beverages could not be proven influential for the persistence of hiccups. Contrary to previously published findings, prolonged singultus was not associated with a significant weight loss in the observations to this thesis.

While the results from the analyses presented here are not suited to deduce universal guidelines on the therapy of chronic singultus from them, it was clearly shown how profoundly this rare clinical problem inflicts the QOL of patients, and what an important role sufficient treatment plays in its rehabilitation. Investigation on a higher level of evidence on the suggestions derived from the findings within this study could not only help to define valid therapeutic options, but most importantly to provide a structured context of treatment in chronic hiccups, and establish a standard of care.