



Introduction

Autoimmune conditions, such as coeliac disease, cause an inappropriate immune response, resulting in damage to the body's own cells(1, 2). Individuals with an autoimmune condition have an increased risk of developing secondary autoimmune conditions(3). Prevalence of other autoimmune conditions alongside coeliac disease is estimated to be 10-30-fold higher than that of the general population(4-7). However, a clearer understanding of the prevalence of this association is needed. Type one diabetes mellitus and thyroid diseases such as Hashimoto and Grave's disease, are the most common autoimmune conditions seen alongside coeliac disease(4, 6, 8). Other autoimmune conditions have been associated with coeliac disease but research on them is limited(4, 6, 8). The aim of this study is to evaluate the prevalence of other autoimmune conditions in a coeliac population.

Method

A survey was designed in survey monkey and circulated to the 3,381 active members of the Coeliac Society of Ireland over a 2-week period.

Participants

Only adults were included in this study. Although the coeliac society comprises of gluten intolerant members, only those with coeliac disease and dermatitis herpetiformis were included.

Survey Questions

Questions asked, members their sex, year of birth and if they had another autoimmune condition. If they had another autoimmune condition they could choose which condition from a drop down list and if the condition was not on the list they could name it in other. Year of both coeliac disease diagnosis and year of other autoimmune condition diagnosis was also asked.

Analysis

Responses were analysed with SPSS version 27.0 software. Categorical variables were summarized by descriptive statistics, including total numbers, averages and percentages. Names of new autoimmune conditions were recorded and checked with an external health care professional that they were indeed autoimmune.

Chart 1 – Proportion of coeliac disease population reporting autoimmune condition

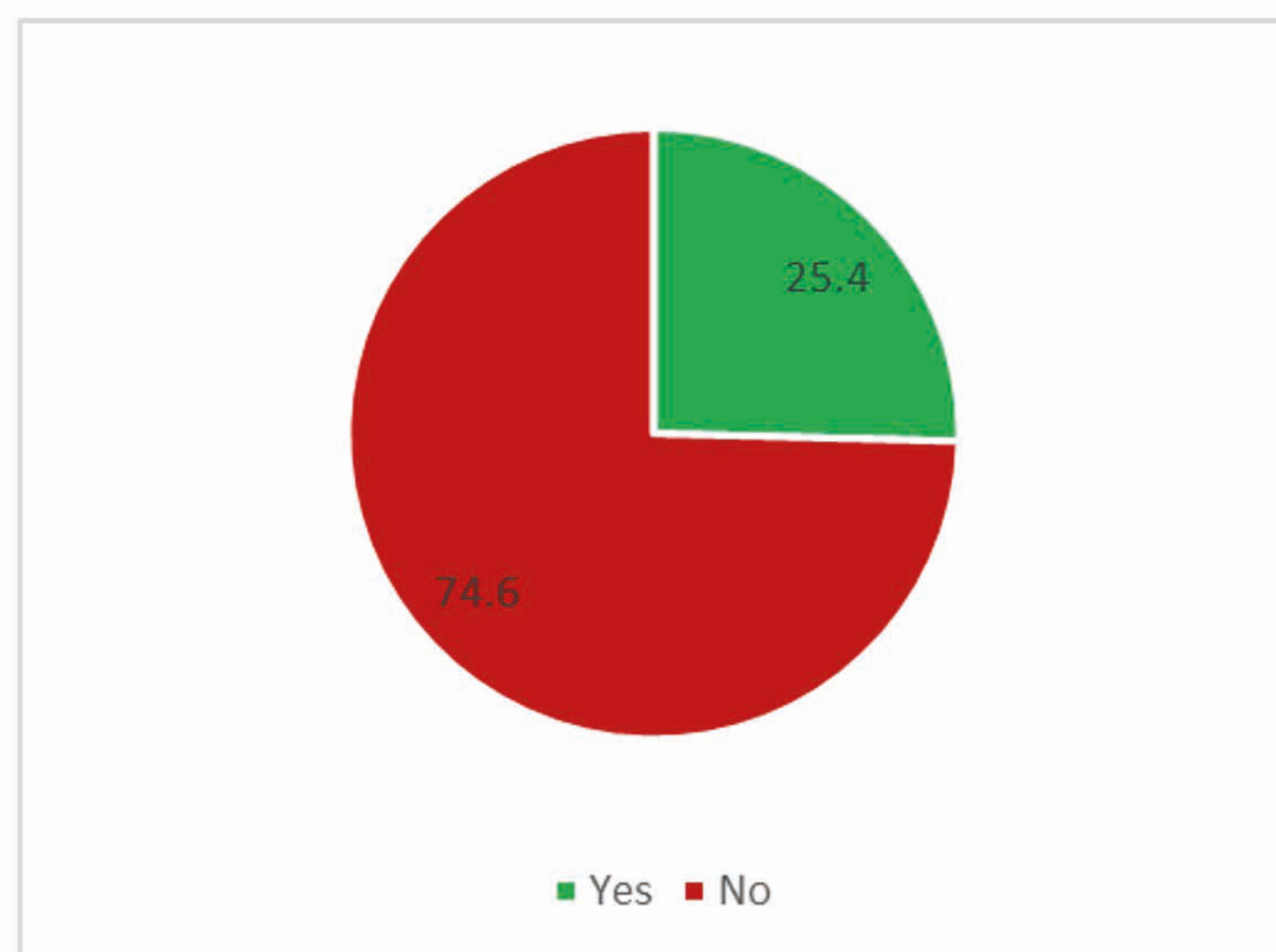


Chart 1; chart represents in percentages, the proportion of individuals to said "yes" or "no" to being diagnosed with another autoimmune condition.

Chart 2 – Proportion of each autoimmune condition reported alongside coeliac disease

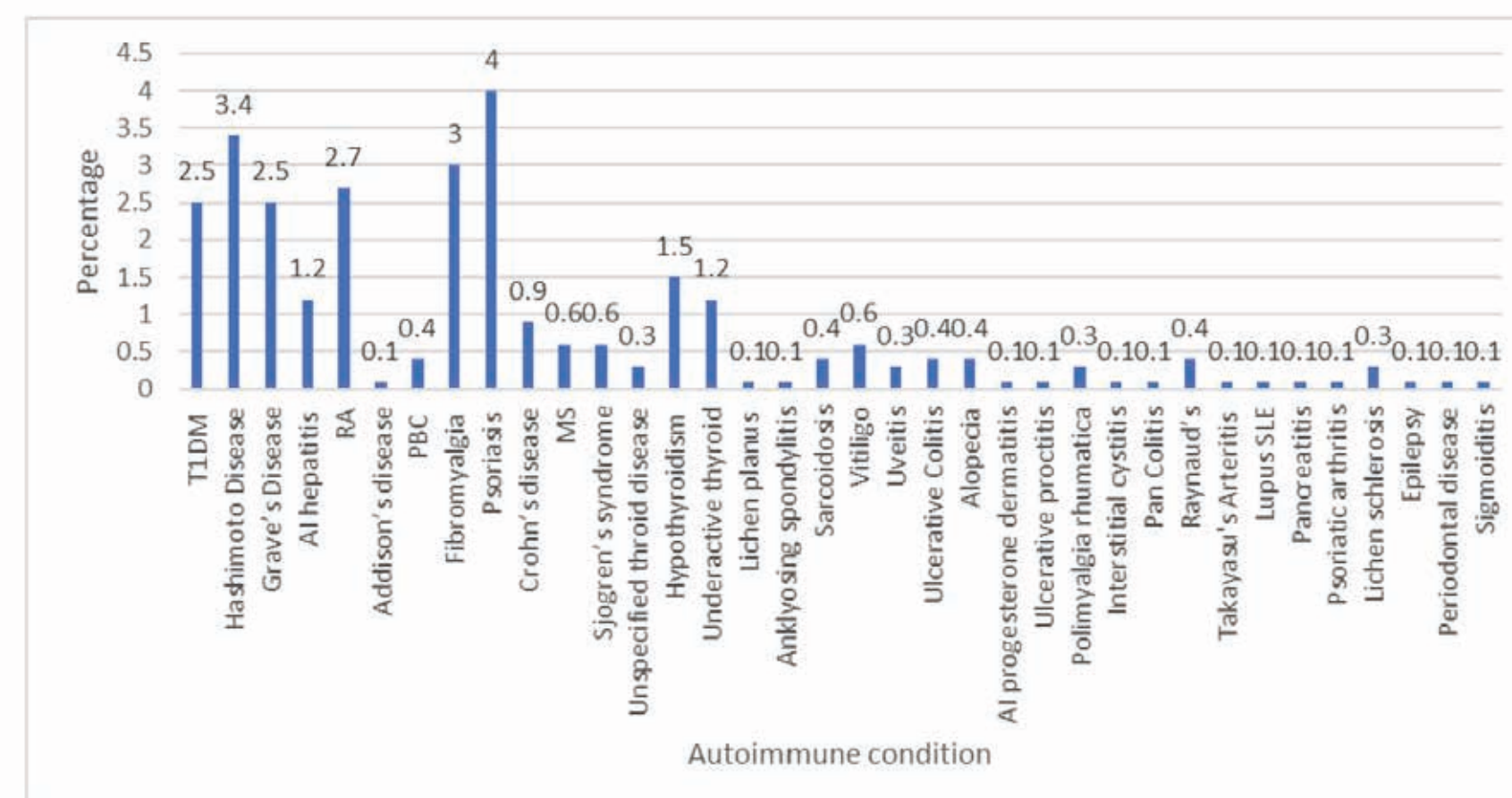


Chart 2; chart represents in percentages, the proportion of each condition reported by the total population.

Results

25.4% of 677 responders reported diagnosis of another autoimmune condition alongside coeliac disease. Psoriasis was the most common autoimmune condition (4% of the population). Hashimoto Disease (3.4% of the population), fibromyalgia(3% of the population) and rheumatoid arthritis (2.7% of the population) were the second, third and fourth most common condition. Those with Graves' disease and type one Diabetes comprised of 2.5% of the total population. A total of 36 different autoimmune conditions were reported alongside coeliac disease. A secondary autoimmune condition was diagnosed on average 2.17 (±16.519) years later than coeliac disease.

Conclusion

Prevalence of other autoimmune conditions alongside coeliac disease in this study falls in the upper range of prevalence found in previous research which is 15-30%(4, 8, 9). Unlike other studies(4, 6, 8), psoriasis and not type one diabetes or thyroid conditions are the most common autoimmune condition reported in this coeliac population. This study summarizes the largest list of autoimmune conditions to occur alongside coeliac disease to date. This study suggests, overall other autoimmune conditions that co-occur alongside coeliac disease are diagnosed before coeliac disease. This suggests that those with other autoimmune conditions could possibly have and should be checked for coeliac disease.

References

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