



The odds of gastroesophageal reflux symptoms increase by 35% per decade in a 23 year prospective, longitudinal study

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Background

The assumption that the prevalence of gastroesophageal reflux symptoms (GERS) increase with time needs to be confirmed in prospective studies of the general population.

Method

By means of a validated questionnaire on gastrointestinal symptom (the Abdominal Symptom Questionnaire, ASQ) an adult population was surveyed four times over 23 years: The samples are described in Table 1. Altogether 490 persons participated in all four surveys.

The effect of time on GERS prevalence was calculated using random effects logistic regression models using GERS as the dependent variable and gender, age and time as independent variables. All participants in all surveys are included in the analyses (1847 participants, 4466 observations).

Results

GERS increased significantly with time, the odds of reporting reflux increasing by 35% per decade (OR:1.34; 95%CI: 1.18-1.53, p<.001) independent of gender and age. This increase was driven by an increase in heartburn (OR:1.53; 95%CI: 1.35-1.73, p<.001) and in acid regurgitation (OR:1.30, 95%CI: 1.14-1.47, p<.001).

In this 23 year prospective longitudinal study on an adult population, the odds of GERS has increased by 35% per decade. On an individual basis, there is a large symptom turnover both within a year and over longer periods, reflecting the natural history of GERS

Conclusions

In this 23 year prospective longitudinal study on an adult population, the odds of GERS has increased by 35% per decade. On an individual basis, there is a large symptom turnover both within a year and over longer periods, reflecting the natural history of GERS.

Disclosures

None

Table 1

Year	Number of participants	Years of age	Response rate (%) of original number approached
1988	1156	21-79	90
1989	1097	22-80	87
1995	1139	20-87	82
2011	1175	20+	64

The four samples from the same population in the community of Östhammar, Sweden

Table 2

Year	Prevalence GERS		Year	Loss from GERS to non-GERS		Gain from non-GERS to GERS	
	N	%		N/N GERS	%	N/N non-GERS	%
1988	86	17.7 (14.5-21.4)	1988-1989	31/86	36.1	36/404	8.9
1989	91	18.6 (15.2-22.3)	1989-1995	29/91	31.9	36/399	9.0
1995	98	20.0 (16.5-23.8)	1995-2011	53/98	54.1	59/392	15.1
2011	104	21.2 (17.7-25.1)					

Prevalence and turnover of GERS in participants completing all surveys (N=490)



CONTACT