PWE-078

INCIDENCE OF FUNCTIONAL INTESTINAL DISORDERS AND POSTINFECTIOUS IRRITABLE BOWEL SYNDROME FOLLOWING A WATERBORNE VIRAL GASTROENTERITIS OUTBREAK

doi:10.1136/gut.2011.239301.341

B Zanini,[1,*] F Caselani,[1] A Magni,[1] A M La Roga,[2] F Bandera,[3] C Ricci,[1] C Cassarino,[3] M Romanini,[3] D Cecchi,[3] F Vassallo,[3] C Scarcella,[3] A Lanzini[1] *[1]Medicine-Gastroenterology Unit, University of Brescia, Brescia, Italy; [2]Hygene, University of Brescia, Brescia, Italy; [3]Local Health Authority, Brescia, Italy*

Introduction Postinfectious irritable bowel syndrome (PI-IBS) may develop in 4–30% of patients following bacterial gastroenteritis (GE), but limited information is available on outcome of viral GE. On summer 2009 a massive community outbreak of Norovirus and Enterovirus GE occurred in San Felice (Lake Garda, Italy) due to contamination of municipal drinking water.[1] In order to investigate the natural history of a community outbreak of viral gastroenteritis and to assess the incidence of functional gastrointestinal disorders and PI-IBS, we carried out a prospective population-based cohort study with control group.

Methods Baseline questionnaires were administered to residents within 1 month of the outbreak. Follow-up questionnaires of the Italian version of Gastrointestinal Symptom Rating Scale (GSRS, a 15 item survey scored according to a 7-point Likert scale) were mailed to patients responding to baseline questionnaire at 3 and 6 months and to a cohort of unaffected controls, living in the same area, at 6 months after the outbreak. GSRS item were grouped into five dimensions: abdominal pain, reflux, indigestion, diarrhoea and constipation. At month 12 all patients and controls were interviewed by an health assistant in order to verify Rome III criteria of IBS. T test and χ^2 or fisher's exact test were used as appropriate.

Results Baseline questionnaires were returned by 348 patients: mean age ± SD 45 ± 22 years, 53% female. At outbreak nausea (score ≥4), vomiting and diarrhoea lasting 2–3 days or more were reported by 66%, 60% and 77% of patients, respectively. Fifty per cent reported fever and 19% referred weight loss (mean 3 kg). Follow-up surveys were returned at month 6 by 185 patients and 168 controls: mean of GSRS score for each dimension is reported in the figure. At month 12 we identified 40 patients with a new diagnosis of IBS (Rome III criteria), in comparison with 3 subjects in the control cohort (p<0.0001; OR 11.40, 3.44 to 37.82, 95%CI). The 40 cases of PI-IBS were subtyped according to the predominant stool pattern,[2] as follows: 4 IBS with constipation, 7 IBS with diarrhoea, 16 with mixed IBS and 13 with unsubtyped IBS (figure 1).

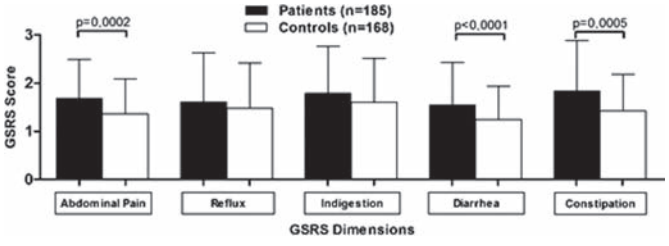

Figure 1 PWE 078

Conclusion Our study provides evidence that mixed Norovirus and Enterovirus GE leads to postinfectious gastrointestinal disorders which persist for at least 12 month after infection. PI-IBS following viral infections develops in a substantial proportion of patients (22%) similar to that reported after bacterial GE.

Competing interests None.

Keywords Enterovirus, Irritable bowel syndrome, Norovirus.

REFERENCES

1. Scarcella *et al*. *Eurosurveillance* 2009.
2. Longstreth *et al*. *Gastroenterology* 2006.

Gut: first published as 10.1136/gut.2011.239301.341 on 13 March 2011. Downloaded from http://gut.bmj.com/ on April 9, 2024 by guest. Protected by copyright.