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Letters to the Editor / Cartas al Editor

VIRAL GASTROENTERITIS DURING SIXTEENTH YEARS OF STUDY

JM Eiros*, MR Bachiller**, JM Pinilla***, R Ortiz de Lejarazu*.

* Departamento de Microbiología. Hospital Clínico Universitario. Facultad de Medicina. Valladolid. Spain.

** Centro de Salud Pilarica-Circular. Valladolid. Spain.

*** Gerencia de Atención Primaria del Sacyl. Segovia. Spain.

eiros@med.uva.es

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To the Editor:

Viral gastroenteritis is caused by many pathogens, each with unique characteristics requiring different laboratory test for identification^{1,2}. In our country several groups emphasize the role of the viral gastroenteritis in children^{3,4}. Similar studies have been done in the European countries⁵⁻⁷, Asia⁸, America⁹ and Oceania¹⁰.

In relation to these contributions and since we are geographically related and have a similar context we could like to point out three aspects: first, to bring forward our 16 years of experience in systematic detection of Rotavirus in children; second, to show our findings in detecting other virus causing gastroenteritis (Adenovirus and Astrovirus) and finally, to mark that both Rotavirus infection and that caused by the aforementioned virus are reported to National Epidemiological Surveillance System.

Since 1986 we systematically search for Rotavirus in fecal samples from children under seven years. At that time Rotavirus antigen detection by means of a latex technique (Rotalex, Orion Diagnostica, Spoo, Finland) was incorporated to our routine. Two years later, in 1988, we added Adenovirus antigen detection using a double latex technique (Diarlex, Orion Diagnostica, Spoo, Finland) which replaced the former one as it could detect both virus at the same time. All positive samples were confirmed by a different method, being this, one step Immunochromatographic assay for Rotavirus (Simple RTV, Operon, Zaragoza, Spain) and a different latex specific for Adenovirus (Adenolex, Orion Diagnostica, Spoo, Finland). This diagnostic algorithm was maintained during the period 1988-1996. From 1997 on all samples that turned out to be negative for Rotavirus or Adenovirus that had liquid or semiliquid consistence were also processed by an ELISA for Astrovirus (IDEIA Astrovirus, Dako Diagnostics, Ely, UK).

Globally we have studied 7865 fecal specimens searching for Rotavirus and in 6989 of them the presence of Adenovirus antigen was also investigated. The prevalences found were 7.2% (CI 95% 6.54-7.71) for rotavirus; 1.8% (CI 95% 1.51-2.17) for Adenovirus and 3.4% (CI 95% 1.39-5.28) for Astrovirus. These findings reveal that search for diarrhea virus for which commercial techniques of easy application are already available offers good profit in health care practice⁵⁻¹¹. Rotavirus, despite the bias that could be committed by showing data from the diagnosis routine of a hospital laboratory, remain the most important viral agent in terms of frequency, and its global prevalence falls within those reported in several national series of the last two decades^{12, 13}. Since the last eighties we also look for Adenovirus and our group has been able to report from the very start of latex agglutination techniques incorporation to our routine, the excellent accordance between these and Electron Microscopy¹⁴, not pleading for the incorporation of the latter to medical attendance routine.

Our results of the detection of these agents as well as those from other Spanish laboratories are systematically recorded in a National Epidemiological Surveillance System¹⁵.

In our opinion in the context of documenting viral gastroenteritis two challenges are posed, on the one hand to contribute to specify the clinical significance of diarrhea virus findings in fecal samples, and on the other hand, to optimize systems of case declaration and notification, principally making the most of the great impulse given to diagnosis technology, due to the recent enlargement of the spectrum of agents detected, such as Astrovirus.

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Correspondence: JM Eiros Bouza. Microbiología. Sexta Planta. Facultad de Medicina. Avda Ramón y Cajal, 7. 47005 Valladolid. Phone: + 34 983 423063. Fax + 34 983 423022. Email: eiros @ med.uva.es

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