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Abstract (poster session)

Molecular detection of emerging gastrointestinal viruses in hospitalised patients

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Objectives: rapid and early diagnosis of the whole spectrum of gastrointestinal viruses is mandatory to control the spread of gastrointestinal syndromes. To addition the role of emerging gastrointestinal viruses is debated. Methods: during the period April 2011-April 2012, 689 stool samples from as many patients hospitalized at the Fondazione IRCCS Policlinico San Matteo of Pavia showing gastrointestinal syndromes were examined for the presence of rotavirus (RV), norovirus (NoV), astrovirus (HAstV), adenovirus (HAdV), rhinovirus (HRV), enterovirus (EV), parechovirus (HPeV), bocavirus (HBoV), coronavirus (HCoV), sapovirus (SaV), cosavirus (HCoSV) and aichi virus (AiV) with specific real-time PCR, real-time RT-PCR, RT-PCR and nested RT-PCR assays. Results: viral gastrointestinal agents were detected from 247 (36%) samples of the 689 analyzed: 43 (6,2%) samples were positive for AdV, 41 (6%) for NoV, 38 (5,5%) for RV, 36 (5,2%) for HRV, 8 (1,2%) for SaV, 7 (1%) for EV, 6 (1%) for HAstV, 5 (0,7%) for hCoV, 5 (0,7%) for HBoV, 2 (0,3%) for HPeV, 1 (0,2%) for HCoSV and 55 (8%) were positive for multiple viral gastrointestinal agents. HCoSV was diagnosed only in one patients, a double lung transplant recipient woman of 43 years old, with a persistent gastrointestinal syndrome (8 months). Conclusions: surprisingly, HRV was one of the most frequently detected virus in this group of hospitalized patients and the most frequently observed virus in coinfections. Our data suggest an etiologic role for HRV as cause of gastroenteritis. For the first time in Italy was diagnosed a HCoSV infection.