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## Current mumps outbreak in Belgium: Is laboratory confirmation by IgM useful?

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Nonetheless the vaccination status of the Belgian population is high, we are currently facing an outbreak of mumps. This current outbreak started in March 2012 among Ghent university students. The genotype G variant, not endemic to our regions, was the culprit. Fully immunised patients were infected because current vaccins only contain mumps genotype A antigens as well as currently available laboratory tests. The aim of this study was to evaluate the influence of currently circulating genotype G on the performance of routine mumps IgM test (Enzygnost\* Anti-Parotis-Virus/IgM, Behring Elisa Processor III, Siemens) at the Ghent University Hospital.

Based on laboratory information system query for March 2012 till March 2013, only patients with a serological request form consistent with the possible clinical picture of mumps were included. Secondly, the electronic patient records of all withhold cases were carefully examined.

From 395 analysed cases, 92 presented with a suspicious clinical picture for mumps. Sixty patients (65%) were between 14 and 28 years old. In 57 out of 92 patients (62%) mumps was actually clinically diagnosed. Only 24 of these 57 clinically clear cases (42%) showed positive mumps IgM. In total 29 of 92 cases (31.5%) tested mumps IgM positive. It is reported in the literature that time between the onset of symptoms and IgM positivity is crucial. The critical point is 2 days after the start of the symptoms: before that point the positivity of PCR is rather expected. In the group of clinically clear cases the onset of symptoms was reported for 31 from 54 (57%) patients. Twelve patients from this group had a positive IgM result. The onset of symptoms was more than 2 days in 91% (11/12) of the cases. Nineteen clinical cases had a negative IgM result, of these group 68% (13/19) of the patients had less than 2 days symptoms.

In conclusion, in the current outbreak the routine IgM mumps test was not fitted to confirm the clinical diagnosis. The positivity rates were as expected higher if the symptoms were present for more than 2 days. Our study emphasizes that mumps diagnosis should be made on clinical basis.

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