SEVERITY OF ACUTE ROTAVIRUS GASTROENTERITIS IN PRESCHOOL CHILDREN - A CASE CONTROL STUDY ON HOSPITALIZED PATIENTS

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Background: In Bucharest the rotavirus positive acute gastroenteritis is currently the main cause of acute diarrheal disease with known etiology, in preschool children.

Objective: The aim of the study was to identify the characteristics of acute gastroenteritis (AGE) rotavirus-positive cases, suggestive for clinical severity.

Methods: Retrospective matched 1:1 case-control study upon hospitalized AGE cases rotavirus positive (cases) and negative (controls) respectively; matching criteria - age, gender and calendar month of hospitalization.

Results: Enrolment criteria allowed assembling of 202 case-control sets. After the univariate analysis of 10 characteristics, the unconditional logistic regression identified 4 of them as being independently and significantly associated (p< 0.05) with AGE rotavirus-positive: dehydration [Odds Ratio (OR): 4.93; 95% Confidence Interval (CI95): 2.14-11.25], hypoglycemia (OR: 2.65; CI95: 1.18-5.98), hospitalization longer then 6 days (OR: 4.24; CI95: 2.01-8.96) and clinical relapse (OR: 2.92; CI95: 1.35-6.34).

Discussions: The characteristics validated through this study as being highly specific for the severity of AGE rotavirus-positive represents consistent evidences that might support integration of universal rotavirus vaccination in the routine of schedule vaccination of infants in Bucharest.