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INVESTIGATION OF GASTRIC EMPTYING IN CHILDREN WITH GASTROESOPHAGEAL REFLUX AND CEREBRAL PALSY

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Background: delayed gastric emptying time (GET) is referred as a cause of gastroesophageal reflux (GOR) in cerebral palsy (CP). Relation between GOR-severity and delayed GET believed as possible, however results of various studies remain controversial. The aim of the study was to investigate GET in children with CP and GOR and to find out any relation between GOR-severity and GET.
Patients and methods: Fifteen children, aged 1-14 years, with CP and GOR (proven by 24 hours pH monitoring) were included in the study. All children underwent gastric scintigraphy after administration of standard composition milk formula that was radioisotopically marked by 99Tc. The amount of the administered milk was calculated for each child at 300 ml/m2 SA. A γ-camera was used to measure the gastric emptying time. Fifteen children with chronic respiratory symptoms, but without neurological problem, who scanned for GOR, were used as controls for GET. Ages of controls were similar to patients. Results: nine of CP patients (60%) had severe GOR at the pHmetry and 6 (40%) were found to have moderate GOR. Gastric emptying time (T½) of patients' croup was 98.55±41.33 min. (x±1SD). Controls had gastric emptying time (T½) 90.22±35.53 min. The mean T½ between controls and patients did not differ significantly (p=0.853). Moreover no relation was found between GOR severity and delayed GET in CP patients (p>0.05). Conclusions: children with CP and GOR usually have not delayed gastric emptying. GOR severity in CP children does not affect gastric emptying time.