follows: impaired glucose tolerance (19%) and CF-associated diabetes mellitus (43%). Calculated indices of insulin resistance (Homa and Caro) showed that 71% of patients with carbohydrate metabolism disorders had a decrease in Caro (<0.332) on the 120th minute of the oral glucose tolerance test, which indicated insulin resistance.

The average HbA1c levels in children with CF-associated diabetes mellitus were 7.3±3.4%, children with glucose tolerance – 6.3±0.4% and in children with normal carbohydrate metabolism – 5.8±0.3%.

The CGMS assessment detected hyperglycemia in 81% patients, while carbohydrate metabolism disorders were diagnosed only in 28% of the cases. Stable postprandial hyperglycemia was detected with CGMS in 91% children aged ≥11 and 64% in group 3–11.

The 74.4% patients had delF508 mutations (homozygous–32%). All the cases of CF-associated diabetes mellitus were diagnosed in these patients.

Conclusions The incidence of carbohydrate metabolism disorders in CF-children was reliably higher than in overall population (28%). Carbohydrate metabolism disorders and CF-associated diabetes were reliably more frequent in children over 11 years of age.

Insulin resistance must be the most likely cause of carbohydrate metabolism disorders.

CGMS in patients with cystic fibrosis helps to detect hidden hyperglycemia that cannot be detected with the help of standard methods.

Carbohydrate metabolism disorders and CF-associated diabetes mellitus are more frequent in patients with delF508 mutation.