THE INFLUENCE OF INTENSIVE INSULIN THERAPY ON THE COURSE OF ACUTE EXACERBATION OF BRONCHIAL ASTHMA

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The objective of study was to prove that patients with exacerbated asthma treated with intravenous insulin therapy in order to maintain glycaemia at 80-130 mg/dL return to health faster than patients treated with insulin administered subcutaneously with glycaemia maintained at 130-200 mg/dL.

We conducted a prospective trial on a group of 24 adult patients treated with acute exacerbation of asthma where glycaemia at admission was higher than 150 mg/dL. The patients were randomly divided into the group treated with intravenous insulin administered at doses maintaining glycaemia at 80-130 mg/dL (group A) and the group treated with insulin administered subcutaneously, maintaining glycaemia at 130-200 mg/dL (B). The patients in control group (C) were treated for exacerbation of asthma without any disturbances in carbohydrate metabolism.

Description of the patients:

Parameter	A (n=11)	B (13)	C (64)
Age (years)	61.36 ± 11	53.69 ± 12.5	48.31 ± 14.3*
Average FEV ₁ at admission (% of the predicted value)	45.64 ± 12.9	42.5 ± 14.9	41.76 ± 7.2
First measurement of glycaemia (mg/dl)	182.27 ± 32.8	196.08 ± 54.4	100.27 ± 16.0

*p<0.05

Results:

Parameter	A	В	С
Average FEV_1 at discharge	83.10 ± 11.7	76.77 ± 15.6	79.55 ± 17.3
Average glycaemia	140.57 ± 40.6	160.51 ± 54.1	
Average duration of hospitalization (days)	8.18 ± 2.44	10.15 ± 5.22	5.77 ± 1.92*

*p<0.05

Conclusion

In the group of patients treated with insulin administered subcutaneously the average stay at the Clinic was almost twice longer than in the group without any disturbances in glycaemia.