The effect of diabetes on the duration and cost of treatment in patients with acute ischemic stroke

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OBJECTIVES

Diabetes is an important risk factor for ischemic stroke .Hyperglycemia observed in acute ischemic stroke is accepted as a poor prognostic factor (1,2). In the present study, our aim is to investigate the effect of diabetes on the duration and cost of treatment in acute ischemic stroke.

METHODS

Three hundred sixty two acute ischemic stroke patients that were hospitalized in the university neurology clinic in 2015 were retrospectively evaluated. Patients that have diabetes (n=112) were compared with the non-diabetics in respect to the duration and cost of hospitalization.

Table: The characteristics of stroke patients with and without diabetes

	Diabetes (+) n=112	Diabetes(-) n=250	*p*
Gender m/f	58/54	138/112	NS
Age	68,7±10,6	66,7±14,4	NS
Hypertension (n)	86/112	153/250	0.002
Hyperlipidemia	23/112	48/250	NS
Smoking	13/112	60/250	0.004
Duration of hospitalization (day)	12.5±7.7	10.9±7.2	NS
Cost of hospitalization (€)	743.5±588.2	689.2±657.2	NS

RESULTS

There were no significant difference among the age, gender and other vascular risk factors of both groups (Table). The duration of hospitalisation was 12.5±7.7 and 10.9±7.2 days in stroke patients with and without diabetes, respectively (p>0,05). We also found no difference between the cost of hospitalization among two groups (743.5±588.2, 689.2±657.2 €, respectively). (Table)

CONCLUSIONS

The cost of stroke treatment is high due to the long-stay of hospitalisation and increased complications during the stay (3,4). Diabetes can be considered a risk factor to prolong the stay due to its macro and microvascular complications (5). However, we found in our study that the duration of hospitalisation does not differ among the stroke patients with and without diabetes. Overall, treatment of concurrent disease such as Diabetes Mellitus did not influence the long-stay of hospitalisation . Therefore, efforts to reduce the direct cost of stroke should aim at improving the rate of recovery or reducing initial stroke severity.

References

Text

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