

point, we suggest that the study of pulmonary function should be extended to groups of diabetic patients suffering from limited joint mobility with and without other chronic complications.

Yours sincerely,

A. Verrotti, F. Chiarelli, M. Verini and G. Morgese

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Response from the authors

Dear Sir,

The problem of pulmonary abnormalities in diabetic patients remains an open issue. We welcome the analysis of Dr. Verrotti et al. on pulmonary function tests in a group of young Type 1 (insulin-dependent) diabetic patients. In our opinion the presence of pulmonary disturbances may depend on the selection of examined subjects.

The results obtained by Dr. Verrotti et al. do not exclude our observations [1]. Dr. Verrotti has examined a younger group of patients with shorter duration of diabetes. No clinical manifestation of angiopathy (i. e. retinopathy or overt nephropathy) was found in his group of subjects. Persistent microalbuminuria alone is the symptom of

early stages of nephropathy [2]. Therefore, patients with microalbuminuria alone may not demonstrate diffusing capacity abnormalities which we found in patients with advanced stages of late diabetic complications [1].

We agree with Dr. Verrotti that coexisting limited joint mobility may be an additional factor which could deteriorate pulmonary function as shown by Schnapf et al. [3] who found reduced lung volume in diabetic patients. Patients with limited joint mobility were excluded from our study. Despite the normal lung volume we observed reduced dynamic compliance in diabetic patients.

Dr. Verrotti's hypothesis that dynamic compliance disturbances may be due to genetically-dependent collagen abnormalities is very interesting. In our opinion dynamic compliance disturbances may be an effect of accelerated collagen aging reported previously by Hamlin et al. [4]. Our point of view also appears to be confirmed by the results of the follow-up study of Lange et al. [5].

Yours sincerely,

K. Strojek and D. Ziora

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