Letters to the Editor

Is Diabetes Responsible for an Increase of the Mean Red Cell Volume?

Dear Sir,

The Short Communication of Davidson et al. [1] deserves some comment: The authors, who reported a higher mean red cell volume (MCV) in a group of 100 diabetic patients compared with a control group, were asking other investigators to contribute to the understanding of this result.

We would like to make the following suggestions based on studies that we have carried out. We studied the MCV values in two populations of normal subjects (485 men in the first study [2], 995 men and women in the second one [3]), and we found in both cases a significant increase of MCV related to alcohol and tobacco consumption. The regression equations drawn from the second study showed that a difference of MCV value under 2 cu μ m, as observed by Davidson et al. in Aberdeen, might be due to relatively small differences in alcohol intake and/or smoking habits between the two groups. Thus, the small differences reported by Davidson et al. in the group of women are consistent with our findings. Unfortunately no data were given on alcohol and smoking habits.

In addition, we were somewhat puzzled by the total absence of information regarding the control group. Hence, it was probably insufficient simply to exclude those subjects known to have an excessive alcohol intake. It would be necessary to perform further studies in order to assess precisely the possible effects of alcohol and smoking habits on MCV values. We are attempting to do this in our studies on diabetic subjects in order to throw further light on this interesting observation.

Yours sincerely

L. Papoz, J. M. Warnet and E. Eschwege

References

- 1. Davidson RJL, Evan-Wong LA, Stowers JM (1981) The mean red cell volume in diabetes mellitus. Diabetologia 20: 583–584
- Eschwege E, Papoz L, Lellouch J, Claude JR, Cubeau J, Pequignot G, Richard JL, Schwartz D (1978) Blood cell and alcohol consumption with special reference to smoking habits. J Clin Pathol 31: 654–658
- Papoz L, Warnet JM, Pequignot G, Eschwege E, Claude JR, Schwartz D (1981) Alcohol consumption in a healthy population. J Am Med Assoc 245: 1748–1751

L. Papoz and E. Eschwege Unité de Recherches Statistiques INSERM 16 bis, Avenue Paul-Vaillant-Couturier F-94800 Villejuif, France

J. M. Warnet Laboratoire de la Direction des Affaires Sanitaires et Sociales F-75 Paris, France

Diabetologia (1981) 21: 427-428

More About Carbohydrates

Dear Sir,

Dr. Reaven [Diabetologia 20: 508–509] reiterates his statement that 'recommendations leading to major modifications in the kind of carbohydrate and fat in the diabetic diet must be based upon sound experimental data' – an unexceptionable statement, except that he implies that we must not advise a change in anyone's eating habits, whether the local norm is 40% of total calories from carbohydrate or 75%. If we are to wait for 'sound experimental data' in terms of clinical end points (morbidity and/or mortality) we may wait until the 21st century or for ever. Taking a stand upon the status quo is hardly more satisfactory. In terms of the average, carbohydrate consumption has changed enormously in Europe and North America during this century; in Britain average consumption of carbohydrate as a proportion of total calories is still declining. Nobody recommended these changes; nor were they the outcome of experimental studies. They happened as a result of diverse economic forces. The average also hides a variety of individual behaviour. Thus in one of our population studies the range of individual carbohydrate intake was from 10-65%.

Currently, a billion or so of the World's inhabitants habitually consume a diet high in polysaccharide carbohydrate and low in total fat, a form of dietary practice which is associated with low rates of atherosclerosis. There is a great deal of evidence from several disciplines, not only epidemiology, which supports the thesis that this diet is a major, though clearly not the only, factor determining the low rates of atherosclerotic disease. Against this Dr. Reaven counters with a few thousand Pima Indians, quoting from two papers concerned with (1) coronary heart disease and (2) diet in that population. Ingelfinger et al. [1] reported that coronary heart disease, judged by the prevalence of Q waves in the ECG, was substan-