fall as renal impairment progressed (Group 3: mean Hb 13.6 ± 1.4 g/100 ml, Group 4: mean Hb 11.6 ± 2.3 g/100 ml. Similarly, there was no significant difference in the PCV values between the retinopathy only patients (Group 2) and those with nephropathy (Groups 3 + 4) although Group 4 had, as expected, the lowest mean PCV (0.35 ± 0.07). When all the groups were considered together we found no correlation between PCV and HbA1 values ($r = -0.18$). This lack of correlation was also found in the patients without complications when considered separately. However, the patients without complications had a significantly lower mean HbA1 value than those with complications.

Our conclusion is that polycythaemia as measured by PCV or Hb does not appear evident in our series of patients with or without different combinations of microvascular complications. Furthermore the haematocrit does not appear to be related to the glycosylated haemoglobin level. We question therefore that glycosylation of haemoglobin per se leads to an increase in haematocrit and that as a result relative polycythaemia ensues.

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Chromium and Insulin Secretion

Dear Sir,

In their most interesting paper Ghafghazi et al. [1] make a valid point in stating that supplementation with chromium will only be of value in those subjects who are chromium deficient. However, the validity of their main conclusion, that chromium inhibits the secretion of insulin is open to question on several points.

Firstly, they could only demonstrate a significant effect by using levels of chromium (0.5 mmol/l) which are at least 3 orders of magnitude greater than the circulating level in man [2]. Under these circumstances the fact that the response was dose dependant is irrelevant.

Secondly, the biologically active form appears to be an organic complex of the metal, and ionic chromium is converted to this form in the intact animal [3, 4]. It would seem, therefore, that the chromic chloride was not exerting a physiological effect.

Thirdly, if the animals were not chromium deficient, why should the chromic chloride have any effect?

It would be eminently desirable to repeat this experiment using other trace metals which may be

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implicated in carbohydrate metabolism, such as Vanadium and manganese, to ensure that the effects found by the authors are specific to chromium.

Yours faithfully,

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