

Oral Hypoglycemic Agents Are Worthwhile

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The controversy evoked by the University Group Diabetes Program (UGDP) results reported in December, 1970,¹ and a few months later,² has quite properly rekindled the interest of clinicians in the need for intensive dietary therapy of the adult maturity-onset diabetic and has provided another example of possible insidious effects of foreign compounds administered to humans. It has also exhumed the more basic controversy, namely, that relating to the benefits, if any, which can be gained from the rigid metabolic control of diabetes mellitus, as reviewed previously in the first edition of this text.³

The UGDP study by all odds had the best designed and the most laudable objectives of any yet undertaken. Unfortunately as they "eyeballed" the data week by week and month by month and saw first a cluster of deaths in patients treated with variable doses of insulin and then a somewhat larger cluster in those treated with tolbutamide, the biostatisticians held sway. Clinicians, shaken by their lack of expertise in biostatistics and forgetting that the study was not intended to evaluate mortality results,⁴ bowed graciously to the intonations of those who extrapolated the data to the maturity-onset diabetic population at large. The tragedy of this issue rests both in the possibility that the implications of the UGDP study are entirely correct, and the equal possibility that they are completely invalid, i.e., that the observed cardiovascular events resulted from a repository of individuals treated with tolbutamide or phenformin who were greater cardiovascular risks at baseline.⁵

Regardless of the many arguments that have been presented pro and con, one must keep in mind the preliminary nature of the results, namely, that the total cardiovascular deaths occurring in the UGDP study represented only 5 per cent of those diabetic patients comprising the entire study population.

The sulfonylureas (carbutamide, tolbutamide, chlorpropanamide, acetohexamide, tolazamide, glybenzylamide) and biguanides (phenformin, metformin, and buformin) lower blood glucose levels by differing mechanisms. Such an effect of these oral hypoglycemic agents used singly or in combination has been