

## Exercise and Hypoglycemia

**H**ypoglycemia caused by exercise is a well-known phenomenon in diabetes care. The following represents a clinically interesting and worthwhile episode that considers the course of diabetes testing.

A 67-yr-old female who has had IDDM for 43 yr had complained of some chest heaviness for ~6 mo. Routine evaluation by a cardiologist dictated the need for a treadmill. The patient was seen in the office and immediately placed on the treadmill. The chest heaviness occurred again, and electrocardiographic changes consistent with ischemia were noted on the monitor. The treadmill was immediately stopped, and continued monitoring

of the patient indicated further signs of ischemia. The patient then volunteered the fact that she probably was having hypoglycemia as well as perhaps cardiac disease; she was given ~60 cc of a glucose-containing cola. All cardiac symptoms and hypoglycemic symptoms disappeared within 5 min.

Because it was unclear whether her symptoms were hypoglycemia or cardiac, she underwent cardiac catheterization the following morning. Moderate atherosclerotic changes were observed throughout her circulation but nothing that would indicate any need for intervention. The cardiology opinion was that possibly the presence of ischemia was related to small vessel disease exacerbated by hypoglycemia.

We have since instituted a protocol that is to be used in all diabetic patients before and immediately after tread-

mill procedures. This merely checks the blood glucose just before and immediately after this short duration of the treadmill exercise.

We feel that this will enable the patients to be prepared to ensure that hypoglycemia does not become a factor in the diagnostic workup. In addition, this protocol will ensure that it is safe to dismiss the patient.

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IDDM, insulin-dependent diabetes mellitus.