Clonidine and insulin tests for growth hormone deficiency

Sir,

The oral clonidine test has been recommended in the investigation of suspected growth hormone deficiency.\(^1\)\(^2\) While recognised that it may cause hypotension and drowsiness,\(^3\) it is thought to be preferable to the insulin tolerance test which is ‘acknowledged to be unpleasant for the patient and potentially dangerous’.\(^1\)

We have, therefore, recently been using clonidine but have been concerned that the hypotension has sometimes been symptomatic. We should like to report the case of one child in which this was severe.

This girl was a growth retarded first twin who failed to match the growth progress of the second twin. While certain dysmorphic features were apparent we wished to exclude remedial causes of growth failure including growth hormone deficiency. Two hours after an oral dose of clonidine (0-15 mg/m\(^2\)) her blood pressure dropped from 115/70 to 88/40 (electronic doppler measurement using Dynamap, Critikon Ltd with appropriate cuff size), her pulse rose from 115 to 180/minute. She became pale and unresponsive with peripheral hypoperfusion, requiring resuscitation with intravenous plasma. Within half an hour she was well. The investigation showed her growth hormone response to be normal.

While recognising that this case is somewhat unusual, we do feel that it serves as a reminder that, like the insulin tolerance test, the clonidine test should not be undertaken lightly, requiring close patient monitoring and the immediate availability of resuscitative facilities.

References