

DHEA Restores Oxidative Balance in Type 2 Diabetes

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By Will Boggs, MD

NEW YORK (Reuters Health) Dec 11 - Administration of dehydroepiandrosterone (DHEA) ameliorates the oxidative imbalance prevalent in patients with type 2 diabetes, according to a report in the November *Diabetes Care*.

"Emerging evidence shows that oxidative stress plays a key role in macro- and micro-vascular complications of diabetes, suggesting that glycemic control is not the only goal in the treatment of diabetic patients," Dr. Giuseppe Boccuzzi from the University of Turin, Italy told Reuters Health.

Dr. Boccuzzi and associates examined the effects of DHEA administration on oxidative stress and advanced glycation end product (AGE) formation in patients with recently diagnosed type 2 diabetes controlled with diet alone and without evidence of chronic complications.

Prior to DHEA therapy, oxidative stress and AGE formation were significantly higher in type 2 diabetic patients than in controls, the authors report.

DHEA significantly reduced oxidative stress parameters in both plasma and peripheral blood mononuclear cells, the report indicates, and its administration was followed by a 50% decrease in levels of pentosidine (a marker of AGE formation).

"By restoring DHEA levels close to those found in young adults, oxidative imbalance will be reduced," Dr. Boccuzzi concluded. "This should be the way to counteract AGE formation in type 2 diabetic patients, likely preventing the progression of chronic complications."

"We expect that DHEA effects on oxidative stress parameters and AGE formation will not persist after its discontinuation," Dr. Boccuzzi explained. However, he said, that does not necessarily mean patients would have to take the hormone their entire lives.

Diabetes Care 2007;30:2922-2927.