



Metabolic Improvement of Male Prisoners with Type 2 Diabetes in Fukushima Prison, Japan

Written By: M. Hinata, M. Ono, S. Midorikawa and K. Nakanishi | Source: Diabetes Research and Clinical Practice August 2007

Abstract

Imprisonment often improves metabolic control in prisoners with type 2 diabetes; however, the reasons for this remain unclear. Here, we investigated the metabolic control of male prisoners with type 2 diabetes in Japan. Retrospective analysis of 4385 medical charts of male prisoners in Fukushima Prison from 1998 to 2004 revealed 109 prisoners (all Asian) with type 2 diabetes (mean S.D.: 51 10 years). All were followed up during their imprisonment (14 10 months). During imprisonment, mean fasting plasma glucose and hemoglobin A1c (HbA1c) levels dramatically decreased from 184 74 to 113 38 mg/dl ($p < 0.001$) and 8.4 2.1 to 5.9 1.2% ($p < 0.001$), respectively. In addition, 5 of 18 prisoners (28%) treated with insulin and 17 of 34 (50%) treated with oral hypoglycemic agents were able to discontinue their treatment and maintain good metabolic control. Most prisoners in Japanese prisons work 8 hours a day, 5 days a week, consuming a high dietary fiber diet including boiled rice with barley, Mugimeshi. These findings suggest that a well-regulated lifestyle and long-term intake of high dietary fiber may have beneficial effects on metabolic control in patients with type 2 diabetes.