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Reisin E, Abel R, Modan M, Silverberg D S, Eliahou H E & Modan B. Effect of weight loss without salt restriction on the reduction of blood pressure in overweight hypertensive patients. *N. Engl. J. Med.* 298:1-6, 1978.

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Our study summarized the positive effects of weight reduction independent of sodium restriction in a large group of overweight patients with mild-to-severe hypertension. We also differentiated the effect of caloric restriction from the effect of weight reduction by measuring the final blood pressure for a period of two months after the hypocaloric diet was discontinued. [The *SCI*® indicates that this paper has been cited in over 365 publications.]

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While working at the Department of Nephrology of the Chaim Sheba Medical Center affiliated with Tel-Aviv University, I noticed that the blood pressures of overweight hypertensive patients were better controlled when those patients achieved a moderate weight reduction. At that time (1974) the medical literature suggested, following L.K. Dahl's theories, that the fall in blood pressure with weight reduction was entirely due to the concomitant reduction in salt intake.[1] When questioning my patients about their salt consumption, however, I learned that all those patients had high sodium intake despite their hypocaloric diets and that their blood pressures had dropped as a direct consequence of weight reduction.

Early in 1975, without any grant support, I decided to test my theory that weight reduction, independent of salt or caloric restrictions, reduced blood pressure. In our special hypertension clinic, a dietician and I started the followup of a pilot group of hypertensive obese patients who were on a hypocaloric diet. After the feasibility of the weight-reduction program was established, we enrolled more patients, to a total study group that included 121 subjects. The statistical analysis of the data at the end of the followup proved my hypothesis and surprised some of the coauthors working with us on the calculations of the data and on the preparation of the report itself. In the discussion section of the manuscript the most difficult part was rebutting the ideas published by Dahl and coworkers,[1] recognized authorities in the subject of hypertension, and by the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure in the US, whose report mentioned weight control only incidentally.[2]

Our manuscript was accepted by the *New England Journal of Medicine*, the first journal to which it was submitted. I believe that the paper has been cited frequently because we were the first to differentiate the effect of salt and caloric restriction from the positive effect of weight reduction in a large number of obese hypertensive patients. After publication of the article I was especially gratified when the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure then agreed that weight reduction often results in a substantial decrease in blood pressure, even when the ideal body weight is not achieved;[3] the committee now recommends nonpharmacological approaches, such as weight control, as definitive interventions and adjuncts to drug therapy in obese hypertensive patients.[3]

As a result of my early work and of new proposals in the area of obesity-hypertension, I was awarded special positions as Visiting National Health Scientist of Canada (1978-1979) and as Ochsner Visiting Scientist at the Department of Hypertension and Division of Research, Ochsner Medical Foundation, New Orleans (1979-1982). These two awards enabled me to devote four years to full-time study of the mechanisms responsible for the decrease in blood pressure after weight reduction.

During the past 10 years I have been able, together with a group of highly qualified researchers at the Ochsner Foundation and Louisiana State University (my current affiliation), to publish considerable data from animal and clinical investigations on the different metabolic, endocrine, and hemodynamic mechanisms that induce a decrease in blood pressure after weight loss.[4,5] See reference #6 for the most recent review on the pathophysiology of obesity-hypertension.

1. **Dahl L K, Silver L & Christie R W.** Role of salt in the fall of blood pressure accompanying reduction of obesity. *N. Engl. J. Med.* 258:1186-92, 1958. (Cited 120 times.)
2. **Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure.** Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure: a cooperative study. *J. Amer. Med. Assn.* 237:255-61, 1977. (Cited 240 times.)
3. ————. The 1984 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch. Intern. Med.* 144:1045-51, 1984. (Cited 180 times.)
4. **Reisin E, Frohlich E D, Messerli F H, Dreslinski G R, Dunn F G, Jones M M & Batson H.** Cardiovascular change after weight reduction in obesity hypertension. *Ann. Intern. Med.* 98:315-9, 1983.
5. **Reisin E, Wilson J R & Frohlich E D.** Hypertension and obesity in rats with ventromedial hypothalamic lesions and low salt intake. *J. Hypertension* 5:173-8, 1987.
6. **Reisin E & Frohlich E D.** Hemodynamics in obesity. (Zanchetti A & Tarazi R C, eds.) *Pathophysiology of hypertension: cardiovascular aspects.* New York: Elsevier Science, 1986. p. 280-97.

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