

## The study of hormone exposure and obesity on the risk of hypertension in Chinese women

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### Abstract

The rapid development of overweight and obesity in China has brought about the increase of the prevalence of hypertension. Most studies on blood pressure in normotensive women showed an increase in blood pressure associated with hormone exposure. The purpose of this study was to evaluate hormone exposure and obesity, and their joint effects on the risk of hypertension in Chinese women. 1,760 women case-control study including 878 hypertensive cases and 882 normotensive controls was conducted in China. History of hormone exposure (combined oral contraceptive, COC) and relevant factors were investigated. Body weight, height, waist circumference (WC), blood pressure, serum lipids and apolipoproteins were measured. Odds ratio (OR) with 95% confidence interval (CI) and population-attributable risk (PAR) was estimated. Our study showed that risk factors for hypertension were: family history of hypertension (OR 2.28, 95% CI 1.86-2.80; PAR 32.71%), increased BMI (OR 2.18, 95% CI 1.69-2.83; PAR 32.33%), increased waist circumference (OR 1.46, 95% CI 1.13-1.88; PAR 14.46%), dyslipidaemia (OR 1.34, 95% CI 1.08-1.67; PAR 16.36%), COC use (OR 1.26, 95% CI 1.02-1.56; PAR 13.47%). Our results indicated that obesity, COC use and their joint effects significantly increased the risk of hypertension in Chinese women. We suggest that obese women wanting to use COC should be counseled with regard to possible increased risk of CVD, and after weighing related risks and benefits, choose an effective and safe contraception method.

### Biography

LI Ying, MD/PhD, is a senior scientist and the director at Jiangsu Institute of Parenthood Research, an adjunct professor at Nanjing Medical University. She directs the National Population and Family Planning Committee (NPFPC) Center for Contraceptive Adverse Reaction Surveillance. She completed over 20 granted studies in reproductive and pharmaceutical epidemiology, with over 80 papers and several patents. She studied at CDC under WHO scholarships on reproductive health surveillance and post market surveillance for the safety of drugs in 1996 and 2000. Recognized by dozens awards and professional honors, she also serves as associate editors for three professional journals.