

# **Metabolic Syndrome in Obese Patients Referred for Weight Reduction Surgery in Taiwan**

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摘要

## **Abstract**

**BACKGROUND AND PURPOSE:** The inverse relation between life expectancy and obesity is in large part due to multiple metabolic and cardiovascular comorbidities. Metabolic syndrome (MS) is defined as a cluster of these comorbidities. The prevalence of MS in obesity is not clear. This investigation assessed the prevalence and inter-relationships of MS with various demographic and clinical characteristics in patients with severe obesity.

**METHODS:** A total of 534 obese patients referred to a surgical center for weight reduction surgery were included in this retrospective study. Data collected included blood pressure, anthropometric measurements, and biochemical parameters associated with metabolic comorbidities and MS. The prevalence of MS in various subgroups was analyzed. **RESULTS:** The frequency of metabolic comorbidities included hypertension in 29.8%, hyperglycemia in 29.0%, hyperlipidemia in 61.0%, hyperuricemia in 57.9%, and abnormal liver function in 60.9%. The presence of any of these 4 metabolic comorbidities in the absence of others was uncommon. Only 28 patients (5.2%) had no metabolic comorbidities. The criteria for MS were met by 217 patients (50.7%). Patients with MS were significantly older (32.9 years vs 29.5 years), more likely to be male (31.9% vs 20.5%) and more likely to have metabolic comorbidities compared with patients without MS. In the multivariate analysis, male gender, age, and abnormal liver function remained significantly associated with the development of MS, while body mass index (BMI) was not. **CONCLUSIONS:** Metabolic comorbidities were common in the obese patients referred for weight reduction surgery. The cluster of metabolic comorbidities in MS was significantly associated with male gender, and increased age but not with BMI.