Habitual physical activity reduces risk of ovarian cancer: A case–control study in southern China

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Objective
To ascertain the relationship between habitual physical activity and the risk of ovarian cancer among southern Chinese women.

Method
A case–control study was conducted in Guangzhou, Guangdong Province, during 2006–2008. Information on physical activity exposure and lifestyle characteristics was obtained from 500 incident ovarian cancer patients and 500 hospital-based controls (mean age 59 years) using a validated and reliable questionnaire. Logistic regression analyses were performed to assess the association between physical activity levels and the ovarian cancer risk.

Results
The control subjects reported significantly longer duration of strenuous sports and moderate activity in daily life than the ovarian cancer patients. Increased engagements in such leisure time activities were associated with reduced cancer risks after adjustment for confounding factors. A significant inverse dose–response relationship was also found for total physical activity exposure, with adjusted odds ratio 0.49 (95% confidence interval 0.35–0.68) for women engaged in 23 or more metabolic equivalent tasks (MET)-hours per week relative to those less than 12 MET-hours per week.

Conclusion
The study provided evidence of an inverse association between habitual physical activity and the risk of ovarian cancer, which is important for the promotion and encouragement of leisure time exercise activities to prevent the disease.

Abbreviation
MET, metabolic equivalent tasks

Keywords
Case–control study; China; Ovarian cancer; Physical activity