



## Editorial:

# Women's health and Chinese integrative medicine

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Researchers in the fields of obstetrics, gynecology, and Chinese integrative medicine (CIM) were invited to share their perspectives on the most recent studies.

In vitro fertilization (IVF) is a choice for more than 1000000 infertile couples each year, and is linked to over 3000000 babies born worldwide (Horsey, 2006). In Europe, over 300000 treatment cycles of IVF or intracytoplasmic sperm injections (ICSI) are performed each year (Andersen *et al.*, 2007), and in the United States, the children conceived through IVF or ICSI comprise 2%–3% of total births (Nygren and Andersen, 2001). Various traditional medical practices originating in China have been widely used worldwide by women to improve health outcomes. CIM has been used to prevent miscarriage during the early phase of pregnancy, regulate the menstrual cycle, and alleviate menopausal symptoms. In recent years, many infertile couples have chosen CIM as an adjunct when they undergo IVF (Qu *et al.*, 2012; Cao *et al.*, 2013). However, as the conclusions from the clinical trials have been inconsistent, clinical practitioners and infertile couples find it difficult to make a final decision on whether to

choose CIM to improve IVF outcomes (Myers, 2006). As well as with IVF, CIM is believed to improve outcomes when used in relation to unexplained infertility, early ovarian failure, polycystic ovary syndrome (PCOS), and amenorrhoea (Qu *et al.*, 2012; Wu *et al.*, 2016). Additionally it is used if the menstrual cycle is prolonged due to an ovarian problem or where the patient wants to conceive quickly, such as with advancing age (35 years plus) or for other personal reasons. Based on the Special Research Fund for the Public Welfare Industry of Health of China (No. 201302013), a series of clinical trials has been conducted to promote better evidence-based clinical practices for the use of transcutaneous electrical acupoint stimulation (TEAS), a new and non-invasive acupuncture treatment, in reproductive medicine. Ye *et al.* (2017) reached a revised group consensus on the use of TEAS in reproductive medicine, which may provide useful recommendations and guidelines for clinical practitioners.

Human cervical cancer is the third most common cancer in women worldwide (Jemal *et al.*, 2011). Oncogenic human papillomavirus (HPV) infection is a prerequisite for the development of cervical cancer and its precursor lesions (Clifford *et al.*, 2003). More than 150 serotypes of HPV have been identified to date, of which about 40 types can infect the cervix. These HPV types are divided into high-risk and low-risk groups (Schiffman *et al.*, 2011). Persistent high-risk HPV (HR-HPV) infection is a major cause of cervical cancer. The introduction of cytological screening has remarkably reduced the incidence and mortality of cervical cancer and the cytology test has been a most widely accepted triage for patients with a positive primary HPV test (Zappacosta *et al.*, 2013). However, many developing countries, including China, lack well-trained cytologists, and therefore the cytology test cannot be carried out effectively. Therefore, other triage options should be considered

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in these countries. HPV testing has been recommended as a primary screening for cervical cancer in many countries (Zappacosta *et al.*, 2013).

More than 90% of women will experience HPV infection in their lifetime. A productive HR-HPV infection may develop into low-grade cervical lesions (low-grade squamous intraepithelial lesion/cervical intraepithelial neoplasia grade 1 (LSIL/CIN1)). HPV testing alone may increase the psychological burden and may cause over-referral to colposcopy. It has been reported that HPV E6/E7 mRNA expression level is highly correlated with the severity of cervical lesions (Ho *et al.*, 2010). HPV E6/E7 mRNA may be useful as a marker for potentially progressive HR-HPV infections and may constitute a useful tool for screening and/or patient management. In this issue, two studies by Yao *et al.* (2017) and Ye *et al.* (2017), respectively, focus on some new research.

As we know, it has been widely recognized that maternal pre-pregnancy body mass index (pre-BMI) and gestational weight gain are closely associated with pregnancy outcomes including neonatal birth weight (NBW) (Stamnes Koepp *et al.*, 2012; Li *et al.*, 2014). In 2009, the Institute of Medicine (IOM) of America introduced a guideline concerning appropriate maternal weight gain during different trimesters for singleton pregnancy, which may result in a better pregnancy outcome (Oken *et al.*, 2009). However, there has been no consensus about the suitability of this guideline for Chinese women and the reported appropriate gestational weight gain differs (Liu *et al.*, 2012). In this issue, Du *et al.* (2017) retrospectively analyzed the influence of maternal pre-BMI and weight gain in each trimester on NBW, hoping to properly guide maternal weight gain based on pre-BMI for Chinese pregnant women.

## Overview

CIM has significant advantages in treating gynecological and obstetrics disorders. As early as in 1237 A.D., the first book devoted solely to gynecology and obstetrics of Chinese medicine, *The Complete Book of Effective Prescriptions for Diseases of Women*, was published. However, more large-size, randomized and multicenter trials should be conducted to improve the evidence base for the use of CIM for treating women's disorder.

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## 中文概要

**题目:** 女性健康与中西医结合医学

**概要:** 中西医结合医学在治疗妇科和产科疾病方面都具有显著优势。早在公元 1237 年，第一本致力于中医妇产科学的专著《妇人大全良方》问世。然而仍需要更多的大型、随机、多中心临床试验来完善和加强中西医结合医学在治疗妇女疾病方面的循证基础。

**关键词:** 女性健康; 中西医结合医学; 妇产科学