Statement on the potential health effects of raspberry leaf tea in the maternal diet

Introduction and Background -Raspberry leaf tea

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Introduction

1. The Scientific Advisory Committee on Nutrition (SACN) last considered maternal diet and nutrition in relation to offspring health in its reports on "The influence of maternal, fetal and child nutrition on the development of chronic disease in later life" (SACN, 2011) and on "Feeding in the first year of life" (SACN, 2018). In the latter report, the impact of breastfeeding on maternal health was also considered.

2. In 2019, SACN agreed to conduct a risk assessment on nutrition and maternal health focusing on maternal outcomes during pregnancy, childbirth and up to 24 months after delivery. SACN agreed that, where appropriate, other expert committees would be consulted and asked to complete relevant risk assessments. A provisional list of chemicals was proposed by SACN Members. However, this was subject to change following discussion by the COT. A scoping paper was presented to the Committee to define the scope of the work from a toxicological safety perspective, and also requesting their input on the selection of candidate chemicals or chemical classes that could be added or removed.

3. As part of this work, the Committee decided it would be useful to consider the use of herbal supplements during pregnancy. A scoping paper reviewed the commonly used herbal supplements during pregnancy. These were promoted by anecdotal evidence and unofficial sources as having various purported benefits. The review was confined to herbal dietary supplements which would be regulated under food law and which would not be considered to be traditional herbal medicines within the remit of the Medicines and Healthcare products Regulatory Agency (MHRA). Among those investigated was raspberry leaf, which is most commonly taken during pregnancy as a dietary supplement to stimulate and facilitate labour and to shorten its duration. Several raspberry leaf products are registered as traditional herbal medicines in the UK. However, these are directed at non-pregnant women for the symptomatic relief of menstrual cramps. Some clinics offer enemas containing raspberry leaf, though it is not clear whether any are aimed at pregnant women.

4. Following this review, the COT agreed that raspberry leaf required further consideration, noting that human, animal and *in vitro* data were available. The main areas of concern included general toxicity to the mother, effects on the development of the fetus or embryo and possible interactions with drugs. Others included potential effects on offspring and on uterine contractility.

5. Based on the COT's recommendations, a more extensive literature search was undertaken to evaluate the safety of raspberry leaf use during pregnancy (for full details of the search method, see Appendix 1). This statement summarises the conclusions drawn by the Committee.

Background

Uses

6. The red raspberry plant (*Rubus idaeus*) is native to Europe, North America and temperate Asia. However, it is mainly grown for commercial use in central and eastern Europe, especially Bulgaria, Macedonia and Romania (European Medicines Agency (EMA), 2014). Leaves of the plant have been used medicinally in Europe since as early as the sixth century (Beckett *et al.*, 1954).

7. Traditionally, raspberry leaf has been used for a range of applications, including relieving menstrual cramps and diarrhoea, as an astringent mouthwash and as a treatment for conjunctivitis (EMA, 2014). However, it is most commonly consumed during pregnancy in an effort to stimulate and facilitate labour and to shorten its duration, with a prevalence of use among pregnant women as high as 38%, based on a recent survey in Australia (Farnaghi and Braniff, 2022). In a survey of herbal remedy use performed at the antenatal clinic at Norfolk and Norwich University hospital between November 2007 and February 2008, 23.7% of expectant mothers who responded to the survey reported taking raspberry leaf (Holst *et al.*, 2011). Typically, it is taken as tea or tablets but occasionally as a tincture (Simpson *et al.*, 2001). Other alleged benefits of raspberry leaf during pregnancy include alleviation of morning sickness; prevention of post-partum haemorrhage, miscarriage and Braxton Hicks contractions; and stimulation of breast milk production (Patel *et al.*, 2004; EMA, 2014).

8. Raspberry leaf may also be mixed with other botanical constituents in some dietary supplements.