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Turmeric

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Drug Levels and Effects

Summary of Use during Lactation

Turmeric (*Curcuma longa*) rhizome contains curcuminoids such as curcumin. No data exist on the excretion of any components of turmeric into breastmilk. A small study found no adverse effects in infants exposed to turmeric in milk. Turmeric is "generally recognized as safe" (GRAS) as a food ingredient by the U.S. Food and Drug Administration. Turmeric is generally well tolerated even in high doses, but gastrointestinal side effects such as nausea and diarrhea, and allergic reactions have been reported.[1] Turmeric may increase the risk of bleeding in patients taking warfarin and antiplatelet drugs. Because of a lack of data, turmeric in amounts higher than those found in foods as a flavoring should probably be avoided during breastfeeding. Turmeric has been used as a galactogogue in India and Indonesia;[2-4] however, no scientific data support this use. In fact, curcumin suppresses milk production in lactating mammary epithelial cells *in vitro*.[5] In Thailand it is

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reportedly used as part of a topical herbal mixture to shorten the time to full lactation and also part of a topical herbal mixture used for breast engorgement.[6,7] Galactogogues should never replace evaluation and counseling on modifiable factors that affect milk production.[8,9] In India turmeric is a component of a paste applied to the breasts for sore nipples, and one study in Iran of moderate quality found it more effective than breastmilk for this use.[10,11] However, contact dermatitis has been reported after contact of the skin with curcumin-containing products.[1] Turmeric products often contain piperine to enhance the absorption of curcuminoids. Information on piperine in breastfeeding can be found in the LactMed record on Black Pepper.

Dietary supplements do not require extensive pre-marketing approval from the U.S. Food and Drug Administration. Manufacturers are responsible to ensure the safety, but do not need to *prove* the safety and effectiveness of dietary supplements before they are marketed. Dietary supplements may contain multiple ingredients, and differences are often found between labeled and actual ingredients or their amounts. A manufacturer may contract with an independent organization to verify the quality of a product or its ingredients, but that does *not* certify the safety or effectiveness of a product. Because of the above issues, clinical testing results on one product may not be applicable to other products. More detailed information about dietary supplements is available elsewhere on the LactMed Web site.

Drug Levels

Maternal Levels. Relevant published information was not found as of the revision date.

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

In a study of exclusively nursing mothers receiving fenugreek seed 200 mg, turmeric 100 mg and ginger 120 mg (Fenucaps; Herbal Acharn's Home Co. Ltd., Thailand) 3 times daily for 4 weeks, no adverse events were reported in their infants, although the method used to determine this finding were not reported.[12]

Effects on Lactation and Breastmilk

A randomized study of nursing mothers with mastitis compared a cream containing curcumin (n = 32) to a placebo (n = 31) cream in the treatment of mastitis, defined as two of the following: erythema, breast tension and breast pain. Cream was applied to the affected breast 3 times daily for 3 days. Mastitis improved in both groups, but the improvement was greater in the group that received the curcumin cream.[13] The authors claimed that the study was double-blinded; however, curcumin has a bright yellow color, and no mention was made of the color of the placebo cream. This difference may have negated the blinding of the study.

Studies of Thai herbal compresses containing ginger, turmeric and camphor have evaluated the effect of application of the compresses to the breasts on lactation. The studies showed that the compresses shortened the time to lactation postpartum compared to routine clinical care for enhancing lactation.[6]

A randomized trial in women with breast engorgement compared warm compresses to warm compresses containing a mixture of dried herbs, including ginger, lemon grass, Stapf leaves and leaf sheaths, *Acacia concinna* leaves, tamarind leaves, *Citrus hystrix* (kaffir lime) peels, *Blumea balsamifera* (sambong) leaves, salt and camphor. Both treatments relived the pain of engorgement, but women who received the compress with herbs (n = 250) had greater pain relief than those who received the warm compress alone. Because of the possible color and odor differences between treatments, the study cannot be considered to be blinded.[7]

Fifty women in Thailand who were 1 month postpartum and exclusively breastfeeding were randomized to receive either a placebo or capsules containing fenugreek seed 200 mg, turmeric 100 mg and ginger 120 mg (Fenucaps; Herbal Acharn's Home Co. Ltd., Thailand) 3 times daily for 4 weeks. Participants pumped milk on 2 days at 0, 2 and 4 weeks of the study. The average milk volumes increased by 49% at 2 weeks and 103% at 4

weeks among participants receiving the active product. The macronutrient composition of the milk did not change in either group over the 4-week period. Growth of infants was not reported.[12]

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Substance Identification

Substance Name

Turmeric

Scientific Name

Curcuma longa

CAS Registry Number

8024-37-1

Drug Class

Breast Feeding

Lactation

Milk, Human

Complementary Therapies

Food

Phytotherapy

Plant Extracts

Galactogogues