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From Medscape Medical News

Restricting Food and Fluid Intake During Labor May Not Be Helpful

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January 20, 2010 — Restricting food and fluid intake during labor may not be helpful or necessary for women at low risk for complications, according to the results of a systematic review reported online January 20 in the Cochrane Database of Systematic Reviews.

"Since the evidence shows no benefits or harms, there is no justification for nil by mouth policies during labour, provided women are at low risk of complications," lead author Dr. Mandisa Singata, from the East London Hospital Complex in East London, South Africa, said in a news release. "Women should be able to make their own decisions about whether they want to eat or drink during labour, or not."

The authors note that in many birth settings, fluid and food restriction during labor are common and that some women are only permitted sips of water or ice chips. These restrictions may adversely affect the experience of labor for some women.

The goal of this review was to evaluate the benefits and harms of oral fluid or food restriction during labor. The reviewers searched the Cochrane Pregnancy and Childbirth Group's Trials Register through April 2009 for randomized controlled trials and quasi-randomized controlled trials of fluid and food restriction for women in labor vs women permitted to choose what they ate and drank. Two reviewers independently evaluated the studies to see if they met selection criteria, determined risk for bias, and extracted data.

Five trials were identified, enrolling a total of 3130 women, all of whom were in active labor and at low risk of potentially requiring a general anesthetic. One study looked at complete restriction vs liberty to eat and drink as desired, 2 studies compared water only vs specific fluids and foods, and 2 studies compared water only vs carbohydrate drinks.

The meta-analysis was dominated by 1 study performed in a highly medicalized environment. No statistically significant differences were found in cesarean deliveries (average risk ratio [RR], 0.89; 95% confidence interval [CI], 0.63 - 1.25; 5 studies; n = 3103), operative vaginal births (average RR, 0.98; 95% CI, 0.88 - 1.10; 5 studies; n = 3103), Apgar scores of less than 7 at 5 minutes (average RR, 1.43; 95% CI, 0.77 - 2.68; 3 studies; n = 2574), nor in any of the other outcomes examined.

The pooled data were not sufficient to determine the incidence of Mendelson's syndrome, nor were women's views evaluated. One study did show a significant increase in cesarean deliveries for women drinking carbohydrate solutions vs water only, but the sample size was small.

"While it is important to try to prevent Mendelson's syndrome, it is very rare and not the best way to assess whether eating and drinking during labour is beneficial for the majority of patients," Dr. Singata said. "It might be better to look at ways of preventing regurgitation during anaesthesia for those patients who do require it."

Limitations of this study include domination of the meta-analysis by a single study, failure to assess women's views, and potential bias in the review process.

"Since the evidence shows no benefits or harms, there is no justification for the restriction of fluids and food in labour for women at low risk of complications," the review authors conclude. "No studies looked specifically at women at increased risk of complications, hence there is no evidence to support restrictions in this group of women. Conflicting evidence on carbohydrate solutions means further studies are needed and it is critical in any future studies to assess women's views."

The National Institute for Health Research, United Kingdom, supported this study. Send press releases and comments to news@medscape.net.

Cochrane Database Syst Rev. Published online January 20, 2010.