Date: February 14, 2014

RE: Cranberry Use during Pregnancy Associated with Urinary Tract Infections and Risk of Vaginal Bleeding


While rates of urinary tract infection (UTI) are similar in pregnant and non-pregnant women, infections in pregnant women can be more severe, leading to pyelonephritis in 20-40% of the women, compared to only 1-2% in women who are not pregnant. UTIs in pregnant women increase the risk of hypertension, anemia, pre-term delivery, low birth weight, and septic shock. Cranberry (*Vaccinium macrocarpon*) has been used traditionally to prevent and treat UTI. This study investigated the positive and adverse effects of cranberry on pregnant women and their newborns.

The databases from the Norwegian Mother and Child Cohort Study (MoBa) and Medical Birth Registry of Norway (MBRN), which are linked by maternal identification number, were searched for cranberry use immediately before pregnancy, during pregnancy, and immediately after pregnancy. Early pregnancy was defined as before pregnancy to the 17th week of gestation, late pregnancy from 17 weeks until delivery, and post pregnancy from delivery to six months after pregnancy. Mother/child cohorts were excluded if there were multiple births or if there were chromosomal abnormalities in the fetus or newborn. The researchers collected data on newborns that included malformations, stillbirth, neonatal death, preterm deliveries, low birth weight, Apgar score, and neonatal infection. Data on maternal UTI, antibiotic use, vaginal infection, vaginal bleeding, age, education level, native language, tobacco use, folic acid supplementation, marital status, body mass index, and physical activity were collected from the MoBa database. Data were analyzed with Pearson's chi-squared tests, Fisher's exact tests, and adjusted odds ratios.

A total of 68,522 women were found in the database who fit the study criteria. Of these, 919 had used cranberry during pregnancy. The form of cranberry used was not recorded. Pregnant women were more likely to use cranberry if this was their first pregnancy and if they had a secondary education and were native Norwegian speakers.
These women were also less likely to smoke and more likely to take folic acid supplements during pregnancy (all P values < 0.05). There was no difference in birth outcome between women who ingested cranberry during pregnancy and those that did not. There was a slight increase in incidents of vaginal bleeding after week 17 of pregnancy in those women who ingested cranberry compared to those who did not (9.7% and 5.8%, respectively, P < 0.001). These were mild and did not require hospitalization. In addition, women who ingested cranberry were more likely to have UTIs during pregnancy (60.3%) than women who did not (10.0%) (P < 0.001). Among the women who had a UTI during pregnancy, 55.9% of the women were treated with antibiotics, compared to only 7.6% who ingested cranberry. Rates of vaginal infection were also higher among women who used cranberry during pregnancy (P < 0.001). Cranberry use had no adverse effects on newborns.

Some interesting results emerged in relation to pregnant women. They were more likely to have UTIs and less likely to treat them with antibiotics. The authors speculate that these women, and pregnant women in general, have a heightened aversion to medications during pregnancy due to potential perceived risks of medication. The authors suggest that further studies on the relationship between bleeding and cranberry use are warranted. This study provides evidence that cranberry use during pregnancy is safe for the fetus and has only minor adverse effects on the mother. Since there are no known medical benefits of cranberry supplementation during pregnancy, these adverse effects would suggest that large doses of cranberry should be avoided during pregnancy, especially after week 17.

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Referenced article can be found at http://www.biomedcentral.com/1472-6882/13/345.