Misoprostol *for* POSTPARTUM HEMORRHAGE

Fever occurring after treatment administration for primary postpartum hemorrhage

Gynuity Health Projects carried out clinical trials in collaboration with partners in Burkina Faso, Ecuador, Egypt, Turkey, and Vietnam to explore the effectiveness of misoprostol for the treatment of primary postpartum hemorrhage (PPH) in nine hospital settings. The research involved two double-blinded placebo-controlled randomized trials of 800mcg of sublingual misoprostol versus IV oxytocin, the standard first-line treatment in many hospital settings. In addition to the following primary outcome measures (measured blood loss, change in hemoglobin, and use of additional uterotonics), the studies also assessed drug safety profiles, reported side effects, and acceptability. The results of reported side effects after treatment with misoprostol are discussed below.

A case review of high fevers in Quito, Ecuador

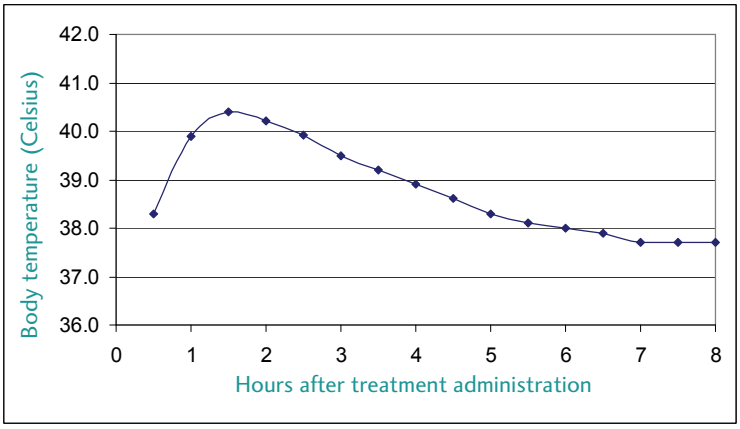
A higher than expected rate of elevated fever (≥ 40.0˚C) was reported among women receiving misoprostol for their diagnosed PPH at one hospital located in Quito, Ecuador. Interestingly, a similar rate of high fever was not observed at any of the eight other hospitals participating in the research studies. At these eight hospitals, the rate of high fevers among women exposed to misoprostol ranged from 0% to 10%, compared with a rate of 36% in the hospital in Ecuador. Why were these high fevers clustered only in Quito, Ecuador? To answer this question, the study team in Ecuador reviewed their clinical practices and patient characteristics, and contemplated environmental factors such as Quito's high elevation and genetic makeup of clientele as possibly contributing to the rate of high fevers. However, no correlation has been confirmed between any of these factors and the occurrence of high fever.

Elevated temperature, as well as transient shivering and diarrhea, are well-known and expected side effects of misoprostol. Scarce documentation exists on temperature trends in women experiencing high fever (over 40.0˚ C) after postpartum administration of this drug. To capture the details related to the occurrence of this side effect in Ecuador, the study team systematically documented the onset, duration, peak temperatures, and treatment of high fever among women with PPH. When fever was observed, the woman's body temperature was measured using an oral mercury thermometer. In the cases of high fever, temperature was measured hourly until the fever subsided. Tympanic and digital oral thermometers were used to compare results with the oral thermometer. Fever was treated with acetaminophen, aspirin (IV), and cool compresses according to hospital protocol. The study nurses responsible for treating the high fevers were easily able to diagnose the high fevers and manage them.

Average Temperature for Cases with High Fever

Almost all participants in Ecuador (150/163) receiving 800mcg of misoprostol sublingually experienced an elevated body temperature (≥ 38.0˚C). One-third (58/163) of these women had fevers measuring ≥ 40.0˚C. The overall trend for cases with high fever was a sharp increase in temperature within one hour of treatment with misoprostol, a peak 1-2 hours after treatment, and a gradual decline over a period of three hours (see graph). Temperatures remained above 40.0˚C for less than two hours, measured below 38.0˚C about six hours after treatment, and were commonly accompanied by moderate/severe shivering. Delirium and/or altered sensorium were reported occurring among seven patients with high fever, and an additional three patients had fainted. Forty percent of women treated for PPH reported the occurrence of high fever as intolerable. Although the incidence of high fever was higher than expected at this site, this secondary effect was transient, non-life threatening, and did not lead to prolonged hospitalization.

Average Temperature for Cases with High Fever



March 2009

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