Tips from Other Journals

Tips from Other Journals are written by the medical editors of *American Family Physician.*

The trade names of drugs listed in Tips from Other Journals are based on what is currently available and not necessarily the brand of drug that was used in the study being discussed.

Aspirin for the Prevention of Recurrent VTE

Background: Patients with idiopathic venous thromboembolism (VTE) are at particularly high risk of recurrence after oral anticoagulation is stopped. About 20 percent of such patients have a recurrence within two years. Extending anticoagulant therapy (e.g., warfarin [Coumadin]) can reduce the risk of a second VTE by up to 64 percent, but it requires ongoing monitoring and dose adjustments, and is beneficial only while therapy continues. However, preliminary evidence suggests that aspirin may also be useful in the secondary prevention of VTE. Becattini and colleagues conducted a double-blind clinical trial examining whether aspirin could be used to prevent recurrent VTE.

The Study: Eligible participants were adults who had been taking anticoagulants for six to 18 months for a first-time, symptomatic, unprovoked proximal deep venous thrombosis (DVT), pulmonary embolism, or both. Patients were randomized to receive placebo or 100 mg of aspirin daily for two years, beginning within two weeks of discontinuing anticoagulation therapy. The primary efficacy outcome was the symptomatic recurrence of DVT or pulmonary embolism. The primary safety outcome was the occurrence of a major bleeding episode, defined as bleeding occurring in a critical location (e.g., intracranial, intraspinal, intra-articular), requiring transfusion, or associated with death.

Results: Over the course of the study, 205 patients received aspirin and 197 received placebo. Baseline characteristics were comparable between the two groups. Significantly fewer patients had a recurrence of DVT or pulmonary embolism while using aspirin compared with patients in the placebo group (5.9 versus 11.0 percent per year; hazard ratio = 0.55; $P = .02$). Both groups had a similar likelihood of major bleeding events, with a rate of about 0.3 percent per patient-year. One episode of nonfatal major bleeding and three episodes of clinically relevant nonmajor bleeding occurred in each group. Overall, mortality rates were similar (1.4 percent per year in the aspirin group versus 1.3 percent per year in the placebo group), with one patient in each group dying from pulmonary embolism.

Conclusion: Among patients with an initial unprovoked VTE who received six to 18 months of oral anticoagulation therapy, the subsequent daily use of aspirin significantly reduced the rate of recurrent VTE compared with placebo, with no increase in the risk of major bleeding.

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Source: Becattini C, et al. Aspirin for preventing the recurrence of venous thromboembolism [published correction appears in *N Engl J Med.* October 18, 2012;367(16):1573]. *N Engl J Med.* May 24, 2012;366(21):1959-1967.

Length of Active Labor in Induced vs. Spontaneous Deliveries

Background: Induction of labor is increasingly common. In 2007, 20 percent of all pregnancies were induced, a 140 percent increase since 1990. Nulliparous women who are induced are more likely to have a cesarean delivery than women who present in spontaneous labor. Although there may be several reasons for the increased rate of cesarean deliveries, differences in the course of induced labors may result in a premature diagnosis of arrest of dilation. Accurately characterizing the course of induced labors could prevent unnecessary cesarean ▶

deliveries. Harper and colleagues compared the progression of induced and augmented labors with those of women who labored spontaneously.

The Study: This retrospective cohort study reviewed all consecutive full-term deliveries of women who reached 10-cm dilation between 2004 and 2008 at Washington University Medical Center in St. Louis, Mo. Women with singleton vertex presentation pregnancies who presented at 37 weeks' gestation or greater were included in the study. Women who delivered preterm, women whose fetuses had congenital anomalies, and women who underwent cesarean delivery before full dilation were excluded.

Labors were categorized as induced, augmented, or spontaneous. Augmentation was defined as patients who were admitted in spontaneous labor but then subsequently required oxytocin (Pitocin). Women in the spontaneous labor group did not require oxytocin. Artificial rupture of membranes, which may be considered an augmentation, was performed in all groups; a secondary analysis measured the effect of artificial rupture of membranes in the spontaneous labor group. The primary outcome was the time required for cervical dilation from 4 to 10 cm in each group and for each 1-cm change. Labor curves were constructed for each group and adjusted for the statistically significant variables of race, macrosomia, maternal obesity, and admission Bishop score greater than 5.

Results: Of the 5,388 women included in the study, 37.5 percent presented in spontaneous labor, 31.9 percent were augmented, and 30.6 percent were induced. Women in the induction group were more likely to be white, 35 years or older, and nulliparous. They were also more likely to have diabetes mellitus, hypertension, obesity, a macrosomic neonate, and a Bishop score less than 5. Nulliparous women who were induced took significantly longer to progress from 4- to 10-cm dilation than those in the spontaneous labor group (median = 5.5 versus 3.8 hours; 95th percentile = 16.8 versus 11.8 hours), and longer for each 1-cm change up to 6 cm. Multiparous women who were induced also took longer to progress from 4 to 10 cm than the spontaneous labor group (median = 4.4 versus 2.4 hours; 95th percentile = 16.2 versus 8.8 hours). Beyond 6 cm, the rate of cervical change in induced women was similar to that of women in spontaneous labor. Augmented labor followed a similar pattern to induced labor up to 6 cm, but then continued more slowly compared with spontaneous labor.

Conclusion: Although women whose labor was induced spent longer in labor, the rate of cervical change after 6 cm was similar to those in spontaneous labor. Arrest of labor should not be diagnosed until induced or augmented patients reach 6-cm dilation.

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Source: Harper LM, et al. Normal progress of induced labor. *Obstet Gynecol.* June 2012;119(6):1113-1118. ■