

explained by simple differences in patient demographics or labor characteristics, based on the effect modifiers that we studied. Family physicians seeking guidance in this area should consider these issues and reserve the use of epidural block for those labors in which it is clearly indicated or advantageous to the patient. In addition, the patient should be provided with informed consent regarding the effects and risks of the procedure.

Robert E. Nesse, M.D.
Mayo Clinic
Rochester, MN

NSAIDs and GI Bleeding

To the Editor: I enjoyed reading the review by Jaydev Varma, M.D., about nonsteroidal anti-inflammatory drugs in lower gastrointestinal bleeding (April-June 1989). I would simply like to add that the clinical experience of my practice is very similar to what he has stated. I have one patient who on three occasions has had lower gastrointestinal bleeding precipitated by the use of Indocin™. This patient has severe gout and ultimately was diagnosed as having angiodysplastic lesions of the colon. Another patient with known diverticular disease developed significant diverticular bleeding after use of a nonsteroidal agent.

Both of these patients were in the geriatric-aged group. I would be curious if the risks of lower gastrointestinal bleeding have been shown to be greater in geriatric patients similar to the increased risk that has been documented of upper gastrointestinal bleeding.

Karl B. Fields, M.D.
The Moses H. Cone Memorial Hospital
Greensboro, NC

The above letter was referred to the author of the article in question, who offers the following reply.

To the Editor: I have read Dr. Field's letter concerning lower gastrointestinal bleeding in the elderly. I find it reassuring that he has had a similar experience with the use of nonsteroidal anti-inflammatory drugs in the elderly.

In response to his question, whether the risks of lower gastrointestinal bleeding has been shown to be greater in geriatric patients similar to the documented risks of upper gastrointestinal bleeding, there are limited published reports in the medical literature. However, the geriatric-aged group is more vulnerable to gastrointestinal side effects of drugs in general and NSAIDs in particular. There are numerous studies relating to NSAIDs and upper gastrointestinal bleeding. However, to my knowledge there are no studies relating NSAIDs to lower gastrointestinal bleeding. My references in the article, "Do Nonsteroidal Anti-Inflammatory Drugs Cause Lower Gastrointestinal Bleeding? A Brief Review," contain the handful of published reports in this regard. A randomized, controlled study may be a reasonable approach to this problem.

Suggested reading:

1. Brocklehurst FC. The gastrointestinal system—the large bowel. In: Brocklehurst FC. Textbook of geriatric medicine and gerontology. New York: Churchill Livingstone, 1985:534-56.
2. Jones JK. Drugs and the elderly. In: Reichel W, ed. Clinical aspects of aging. Baltimore: Williams & Wilkins, 1989:41-60.
3. Carson JL, Strom BL, Morse ML, et al. The relative gastrointestinal toxicity of the nonsteroidal anti-inflammatory drugs. Arch Intern Med 1987; 147:1054-9.
4. Bahrt KM, Korman LY, Nashel DJ. Significance of a positive test for occult blood in stools of patients taking anti-inflammatory drugs. Arch Intern Med 1984; 144:519-21.
5. Patmas MA, Wilborn SL, Shankel SW. Acute multisystem toxicity associated with the use of nonsteroidal anti-inflammatory drugs. Arch Intern Med 1984; 144:519-21.
6. Agarwal AK, Eisenbeis CH Jr. Therapeutic guidelines for use of nonsteroidal anti-inflammatory drugs for rheumatic disorders: nonsalicylates. Fam Pract Recertification 1988; 10:49-70.
7. Amadio P Jr, Cummings DM. Nonsteroidal anti-inflammatory agents: an update. Am Fam Physician 1986; 34:147-54.

Jaydev Varma, M.D.
Medical College of Georgia
Augusta, GA

Thromboembolic Disorders

To the Editor: In the article "Diagnosis and Evaluation of Thromboembolic Disorders" (April-June 1989), I was disturbed by the lack of importance given to the arterial blood gases (ABGs) in the initial workup of suspected pulmonary embolism. While Dr. Brunader states the facts on ABGs in laboratory data, he fails to use these facts later on. In Figure 1, "Approach to Diagnosis of Suspected Pulmonary Embolism," the ABG is especially absent in the initial workup consisting of H+P, EKG and CXR. The ABG, if it shows a PaO₂ > 90 percent, is an approximately 95 percent negative predictor of pulmonary embolism (PE), i.e., highly sensitive to rule out PE. Both the EKG and CXR are in most cases not very helpful in ruling out a PE, especially in the young healthy patient, and, certainly, they do not compare with a 95 percent negative predictor like the ABG. Moreover, in the large subset of patients who fit into the "slightly more than minimal risk" category (my own category), I find the ABG to be invaluable.

For example, consider a 20-year-old white woman with no significant medical history or family history. She was started on birth control pills 2 months ago but stopped them 3 weeks ago because of persistent daily