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**Selective Serotonin Reuptake Inhibitors and Risk of Intraoperative Bleeding**

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**Background:** As of 2005, antidepressants surpassed antihypertensive agents to become the most commonly prescribed medications in the outpatient setting, with a prescription rate of 10.12% in the general population. A case-control study of more than 64,000 patients showed that exposure to antidepressants with intermediate or high inhibition of serotonin reuptake was associated with increased risk of bleeding. This is possibly due to platelet dysfunction as a consequence of serotonin-uptake blockade. Most evidence associates use of selective serotonin reuptake inhibitors (SSRIs) with upper gastrointestinal bleeding, especially in the setting of aspirin or warfarin use. At this time, there are no evidence-based guidelines for the perioperative management of SSRIs.

**Methods:** We performed a systematic PubMed and MEDLINE review of all literature discussing the effect of SSRIs on surgical bleeding published between September 2002 and December 2009. The amount of surgical bleeding and the need for allogeneic blood transfusion was compared between patients taking SSRIs and patients not on antidepressants.

**Results:** We identified 6 publications (3 studies and 3 case reports) assessing the association of SSRIs with surgical and postprocedural bleeding. 1,229 patients on SSRIs were identified undergoing several surgical procedures (CABG, orthopedic surgery, ENT procedures, and pancreatoduodenectomy). There was minimal difference in transfusion requirement during CABG (73% in SSRI users versus 61% in nonusers). A second study in patients undergoing CABG indicated that SSRIs did not increase intra- and postprocedural bleeding events (6.5% in SSRI users versus 7.2% in nonusers; OR = 0.93). However, significant differences in blood loss and transfusion requirements were noted during orthopedic procedures (23% in SSRI users versus 14% in nonusers).

**Conclusions:** There is a paucity of published data regarding the provision and safety of SSRIs in the perioperative period. However, the interactions and effects mentioned indicate that patients who use SSRIs and require surgery might have an enhanced perioperative risk. Further studies are required to clarify whether stopping SSRIs is warranted prior to certain or all surgical procedures.