**INTRODUCTION**

Bevacizumab (BV; Avastin®) is a monoclonal antibody that targets vascular endothelial growth factor (VEGF), a key mediator of angiogenesis. BV has been approved in combination with fluorouracil, leucovorin, and oxaliplatin for the treatment of metastatic colorectal cancer (mCRC) and as a single agent for treatment of recurrent glioblastoma multiforme. In addition, BV is approved in combination with fluorouracil and leucovorin (5-FU/LV) for the treatment of metastatic colorectal cancer patients with limited disease. BV has also demonstrated clinical benefit in patients with metastatic renal cell carcinoma and non-small cell lung cancer. The safety and efficacy of BV have been shown in patients with previously treated metastatic colorectal cancer in a randomized, double-blind, placebo-controlled phase III trial that compared BV plus chemotherapy to chemotherapy alone [1] and in an additional, open-label, randomized, phase II trial (BRiTE) [2].

**METHODS**

**Study design.**

A total of 255 patients began BV therapy in February 2004, with a potential maximum follow-up of 3.5 years. Patients were to continue BV therapy until disease progression, unacceptable toxicity, or withdrawal of consent. The primary endpoint was the occurrence of serious wound-healing complications (sWHCs) during surgery while on BV therapy. Secondary endpoints included infection, tumor involvement at the operative site, history of diabetes, and obesity.

**Patients and methods for BRiTE have been described** [2]. Eligible patients had mCRC or locally advanced and unresectable CRC and received BV in combination with fluorouracil, leucovorin, and oxaliplatin as first-line treatment. All patients received BV as a component of their first-line treatment. The chemotherapy regimen, BV dose, the ideal interval between last dose of BV and surgery remains undefined.

**Informed patient consent was required.** Eligible patients had mCRC or locally advanced and unresectable CRC and received BV in combination with fluorouracil, leucovorin, and oxaliplatin as first-line treatment. All patients received BV as a component of their first-line treatment. The chemotherapy regimen, BV dose, the ideal interval between last dose of BV and surgery remains undefined.

**Enrollment, follow-up, and site distribution**

The baseline characteristics of BRiTE participants are shown in Table 1. The cutoff date for the analyses in this report was September 5, 2007. Information on surgical procedures performed during study treatment was collected, including date, type, site, prednisone therapy, platelet count <100,000/mm^3^, and whether a serious WHC or bleeding event complication was observed.

**Types of surgery and sWhC rates**

The types of on-study surgical procedures associated with sWHC and the sWHC incidence for each surgery type were hepatic metastasectomy, 6/99 (6.1%); reanastomosis (4/30; 13.3%); resection of colorectal liver metastases, 4/64 (6.3%); resection of hepatic metastases, 3/55 (5.4%); myomectomy, 2/25 (8.0%); liver transplantation, 1/20 (5.0%); and collection, including date, type, site, prednisone therapy, platelet count <100,000/mm^3^, and whether a serious WHC or bleeding event complication was observed.

**Incidence of sWHC by time post-BV therapy and by surgery category**

The incidence of sWHC was relatively higher in patients requiring surgery within 14 days of the last BV dose. The only type of surgery that was associated with sWHC within 14 days of the last BV dose was intestine or colorectal liver metastases (6/17, 35.3%).

**Conclusions:**

- A total of 255 patients began BV treatment in February 2004, with a potential maximum follow-up of 3.5 years. Patients were to continue BV therapy until disease progression, unacceptable toxicity, or withdrawal of consent. The primary endpoint was the occurrence of serious wound-healing complications (sWHCs) during surgery while on BV therapy.
- The incidence of sWHC was relatively higher in patients requiring surgery within 14 days of the last BV dose. The only type of surgery that was associated with sWHC within 14 days of the last BV dose was intestine or colorectal liver metastases (6/17, 35.3%).
- Among patients with sWHC, 4 events were reported for each type of surgery: infection, tumor involvement at the operative site, history of diabetes, and obesity.
- The majority (18/23) of BV-treated patients with sWHC experienced the complication when surgery was performed within 14 days of the last BV dose. The median time interval between the last BV dose and the sWHC was 6 days. Among 23 patients with sWHC, other factors possibly associated with wound-healing impairment included infection (12 patients), tumor involvement at the operative site (4 patients), history of diabetes (2 patients), and obesity (4 patients).
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**REFERENCES**


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