## Gastrointestinal stromal tumors: prognostic factors and therapeutic implications

Fausto Rosa, Sergio Alfieri, Antonio Pio Tortorelli, Dario Di Miceli, Valerio Papa, and Giovanni Battista Doglietto

Department of Digestive Surgery, Agostino Gemelli Hospital, Catholic University of Rome, Rome, Italy

## ABSTRACT

**Background.** Gastrointestinal stromal tumors (GISTs) are the most frequent mesenchymal tumors of the digestive tract. They have recently been recognized as a separate nosological entity and the literature on these stromal tumors has rapidly expanded.

Materials and methods. The surgical records of 50 patients with primary GISTs treated at the Digestive Surgery Department of the Catholic University of Rome from January 1993 to December 2010 were reviewed and the prognostic factors were analyzed.

**Results.** Surgery was performed in all patients with curative intent. The median age at presentation was 66.5 years (range, 28-81). Adjuvant therapy was administered in 26 (52%) cases. Median follow-up was 71 months (range, 5-208). There was an 8% recurrence rate. The actuarial 5-year overall and disease-free survival rates were 66.3% and 57.2%, respectively. High mitotic rate (P < 0.001), tumor size greater than 10 cm (P = 0.007) and tumor rupture (P = 0.05) were the only prognostically significant negative factors for overall survival in multivariate analysis.

**Conclusions**. The present study confirmed the important role of aggressive surgical management of GISTs to offer these patients the most appropriate treatment for long-term survival.

**Key words:** GIST, surgical technique, molecular biology, tyrosine kinase inhibitors.

Conflict of interest: None.

Correspondence to: Fausto Rosa, MD, Department of Digestive Surgery, A Gemelli Hospital, Catholic University, Largo A Gemelli 8, 00168 Rome, Italy. Tel +39-06-30155133; fax +39-06-30156579; email faust.rosa@tiscali.it

Received July 1, 2011; accepted September 20, 2011.