Bevacizumab (BEV), a humanized monoclonal antibody against vascular endothelial growth factor A, has demonstrated activity in patients with recurrent glioblastoma multiforme (GBM). Few previous small sample-size studies have correlated various factors to treatment response, although no predictive parameters have yet been determined. More studies and new approaches to identify the patients that clinically benefit from BEV are therefore in great demand. The primary end-point was to identify the predictive factors of BEV response in patients with recurrent GBM, this single center study retrospectively analyze 196 consecutive, non-selected recurrent primary and secondary GBM patients with ECOG performance status 0-2 who were treated with BEV combination therapy from May 2005 to December 2013. The secondary end-point point was to identify prognostic factors for overall survival (OS) and progression-free survival (PFS). Factors that were analyzed as potential markers of predictive significance included: Age, corticosteroid at start of therapy, increase in corticosteroid dose during the 2 first series, PS at start of therapy, PS after 2 series, PS at best response, gender, extent of resection, tumor location, tumor size, secondary GBM, prior line of chemotherapy, p53, EGFR and MGMT expression. Univariate and multivariate analysis of the probability of MacDonald response at 2 months as well as the best response. Estimates of survival probabilities for OS and PFS were performed by Kaplan-Meier method. Univariate and multivariate analyses of OS and PFS for the chosen explanatory variables were performed using Cox regression model. P values <.05 were considered significant. Calculations have been performed using SPSS and SAS software. Results from analysis will be presented.