In this manuscript, we showed that defective Mismatch repair (dMMR) and a low number of buds in the pre-treatment biopsy are independently associated with a high rate of complete pathological response. The prevalence of dMMR in our series was higher (29.2%) than reported in Caucasians but similar to those reported in Latin American series. Tumor budding and MMR status should be considered as another tool for implementation in protocols and studies that predict the complete pathologic response to preoperative chemoradiotherapy in rectal cancer.