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Candida glabrata, like *Candida albicans,* is an opportunistic yeast pathogen that has adapted to colonize all segments of the human gastrointestinal tract and vagina. The *C. albicans* cell wall expresses β-1,2- linked mannosides (β-Mans) promoting its adherence to host cells and tissues. As β-Mans are also present in *C. glabrata,* their role in *C. glabrata* colonization and virulence was investigated in a murine model of dextran sulfate sodium (DSS)-induced colitis. Five clustered genes of *C. glabrata* encoding β–mannosyltransferases, BMT2-BMT6, were deleted simultaneously. β-Man expression was studied by Western blotting, flow cytometry and NMR analysis. Mortality, clinical, histologic, and colonization scores were determined in mice receiving DSS and different *C. glabrata* strains. The results show that *C. glabrata bmt2-6* strains had a significant reduction in β-1,2 Man expression and a disappearance of β -1,2 mannobiose in the acid-stable domain. A single gavage of *C. glabrata* wild-type strain in mice with DSSinduced colitis caused a loss of body weight, colonic inflammation, and mortality. Mice receiving *C. glabrata bmt2-6* mutant strains had normal body weight and reduced colonic inflammation. Lower numbers of colonies of *C. glabrata bmt2-6* were recovered from stools and different parts of the gastrointestinal tract. Histopathologic examination revealed that the wild-type strain had a greater ability to colonize tissue and cause tissue damage. These results showed that *C. glabrata* has a high pathogenic potential in DSS-induced colitis where β-Mans contribute to colonization and virulence.