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### Association of stem cell marker CD133 expression with dissemination of glioblastomas.

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Dissemination of glioblastoma was once considered rare but is now increasingly encountered with longer survival of glioblastoma patients. Despite the potential negative impact of dissemination on clinical outcome, however, molecular markers useful for prediction of dissemination risk still remains ill defined. We tested in this study for an association between the expression of stem cell marker CD133 and the risk of dissemination in 26 cases of glioblastoma (16 with dissemination and 10 without dissemination). The protein expression of CD133 was examined by western blot analysis of tumor specimens, and the CD133 expression levels were quantified by densitometry and normalized to beta-actin. The results indicated that CD133 expression levels are significantly higher in glioblastomas with dissemination (mean 10.3, range 0.20-27.8) than in those without (mean 1.18, range 0.07-3.58). The results suggest that CD133 could be a molecular predictor of glioblastoma dissemination, and also give rise to an intriguing idea that CD133-positive cancer stem cells may be implicated in the initiation of disseminated lesions.

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