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## Sexual Differences in Depression in a Brain Tumor Patients

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### Abstract

Gender differences have been found in many cardiac, stroke and cancer disorders. Sexual differences on depression among brain tumor patients has been rarely studied. The aim of this study was to determine relations between manifested depressive episode and gender in brain tumor patients. The data consisted of 115 patients with a primary brain tumor, 61 males and 54 females. Depression of the patients was assessed by Hamilton Depression Scale (HADS) and functional status by Karnofsky Performance scale (KPS). The level of depression in females was higher compared to that of males. There were no statistically significant differences between male and female groups, although depression is more prevalent in women. Our data are similar to the majority of results from epidemiological studies that show that depression is more prevalent in females. Further studies are needed to find the connection between biological cause of brain tumors and depression. Sex differences help us to understand the nature of neuropsychiatric disorders, which will help us to find specific treatments and prevention strategies.

**Keywords:** sexual differences; depression; brain tumors; neuro-oncology;

### Introduction

Gender differences have been found in many cardiac, stroke and cancer disorders<sup>[1-4]</sup>. Sex differences and the risks of developing neuropsychiatric disorders are programmed into our brain during early development and do not only show up in the prevalence of disorders, but also in their signs, symptoms and course. Mechanisms of depression in patients with brain tumors have not been fully elucidated. Numerous factors have been examined. Sexual differences on depression among brain tumor patients has been rarely studied [5, 6]. Some studies have documented higher incidence of depression in female patients compared to male patients. Weitzner et

## Razlike u polovima u depresiji kod pacijenata sa tumorom mozga

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### Apstrakt

Razlike u polu su pronađene u mnogim oboljenjima srca, kod moždanog udara i tumora. Razlike u polu u depresiji kod pacijenata sa tumorom mozga su retko istraživane. Cilj rada Cilj ovog rada je bio da se utvrdi odnos između ispoljene depresivne epizode i pola kod pacijenata sa tumorom mozga. Metode rada Podaci se sastoje od 115 pacijenata sa primarnim tumorom mozga, 61 muškaraca i 54 žena. Depresija pacijenata je procenjena Hamiltonov skalom depresivnosti (HADS). Nivo depresije kod žena je bila veća u odnosu na muškarce. Nije bilo statistički značajne razlike između muške i ženske grupe, iako je depresija češća kod žena. Naši podaci su slični kao i većina rezultata iz epidemioloških studija koje pokazuju da je depresija češća kod žena. Dalje studije su potrebne da pronađu konekciju između biološkog uzroka tumora mozga i depresije. Razlike u polu pomažu nam da razumemo prirodu neuropsihijatrijskih poremećaja, koje će nam pomoći da pronađemo specifične tretmane i strategije prevencije.

**Key words:** polne razlike; depresija; tumori mozga; neuro-onkologije;











