

TO THE EDITOR

Re: Del Brutto O.H. A Review of Cases of Human Cysticercosis in Canada. *Can J Neurol Sci.* 2012;39:319-22.

Sir, the recent report on cysticercosis in Canada is quite interesting¹. Del Brutto et al concluded that “the prevalence of this parasitic disease may be on the rise” and mentioned the importance of immigrants who might carry diseases. Indeed, due to rising number of immigrants, the similar situation is also described in Europe². There are many considerations on this report. First, this disease does not directly spread from person to person. Cysticercosis occurs due to intake of contaminated food. The course of disease is usually long. Before overt clinical presentation as neurocysticercosis, silent infestation can be persistent for a long time. The possibility of getting disease in Canada is still questionable. If it is an actual case, it implies a food hygienic problem since the main mode of getting

cysticercosis is food-borne transmission. The increasing in number of the cases might be due to increased number of immigrants from the endemic area.

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REFERENCES

1. Del Brutto OH. A review of cases of human cysticercosis in Canada. *Can J Neurol Sci.* 2012 May;39(3):319-22.
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TO THE EDITOR

Cryptococemia in a Patient with Glioblastoma: Case Report and Literature Review

The incidence of primary malignant brain tumours has been on the rise, especially in the elderly population. In 2012, an estimated 22 910 new cases of primary brain neoplasms will be diagnosed in the United States. Roughly, 54% of these tumours are WHO Grade IV, Glioblastoma Multiforme (GBM). Known to have a dismal prognosis and high case mortality ratio, the median survival of this condition is generally less than one year from time of diagnosis and five-year survival is less than 5%.

For good performance status patients, National Comprehensive Cancer Network (NCCN) guidelines recommends treatment involving maximal safe resection followed by fractionated radiotherapy (RT) (usually to 60Gy) with concurrent daily temozolomide (TMZ); this should be followed by adjuvant TMZ for six months. In addition, many of these patients may require prolonged corticosteroid therapy to control the peri-tumoral and radiation-induced cerebral edema.

The incidence of opportunistic infections, particularly *Pneumocystis Carinii* Pneumonia (PCP), in HIV negative patients on TMZ appears to be higher¹; this is likely attributable to TMZ induced lymphopenia. Due to the associated mortality and morbidity of PCP, recommendations have been made to place patients on prophylaxis during the concurrent temozolomide/RT phase of treatment. A recent literature review² reported the most frequently experienced infections were mucocutaneous candidiasis (28.2%), herpes zoster (12.8%), herpes simplex virus (10.2%), cytomegalovirus (CMV) (12.8%), PCP (7.6%), Hepatitis B virus (5.1%) and others (23%).

We present a case report of a patient with brainstem GBM treated with RT with TMZ who developed systemic cryptococcal infection.

CASE REPORT

The patient is a previously healthy 53-year-old Chinese businessman who presented with a sub acute frontal headache, slurring of speech and gait disturbances lasting a week. Initial magnetic resonance imaging (MRI) showed rim-enhancing lesions in the brainstem, which extended from midbrain to medulla (Figure 1). Biopsy was initially deferred in view of the precarious location and the patient was started on corticosteroids on the presumptive diagnosis of multiple sclerosis.

However, his symptoms progressed causing him to develop right hemiparesis. Repeat MRI revealed an interval increase in the size of the brainstem lesions. Stereotactic biopsy of the brainstem lesion was performed and histopathology confirmed GBM, WHO grade IV.

He was treated with definitive RT, and concurrent oral TMZ daily (75mg/m²/day), up to brainstem tolerance (a total dose of 54 Gy in 27 fractions using intensity modulated radiation therapy). He received low dose oral dexamethasone 4 - 8 mg/day during radiotherapy. In addition, he was started on sulfamethoxazole and trimethoprim (Bactrim), for prophylaxis against PCP.

He planned to receive six cycles of adjuvant TMZ (5 days every four weeks, 150mg/m²/day). After two cycles, interval MRI (three months post RT) showed increasing mass effect with midline shift and hydrocephalus. He was restarted on dexamethasone 4 mg/day and TMZ was continued for two further cycles.

However, the patient's mental state and Glasgow coma scale continued to fluctuate at six months post-RT. This was initially attributed to progressive brain tumor until the patient developed a persistent low-grade fever.

Full blood count showed normal hemoglobin, platelets and white cell count. Neutrophils were normal, however the absolute lymphocyte count was reported to be low (0.1 – 0.3 x 10⁹/L).