



(CASE REPORT)



Cystic glioblastoma mimicking toxoplasmosis in a young adult: A case report

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Abstract

Glioblastoma multiforme is the most frequent brain tumor with high malignancy, also there are rare cases of presentation for solitary cystic glioblastoma (GBM) form which is mimicking infection, especially toxoplasmosis.

In our case report highlighted the gold stone of the clinical feature identifying of cystic GBM to ensure early diagnosis and treatment.

Keywords: Glioblastoma; Toxoplasmosis; Biopsy; Subtotal Resection; Cystic Glioblastoma

1. Introduction

Glioblastoma is one of the most aggressive tumors in the brain, which account for almost 80 percent of all malignant primary tumors of the brain [1] and more than 60 percent of all brain tumors in adults, [1] which is the generally primary tumor and more malignancy form of astrocytes at grade IV, [2] Originated by neuroglial cells (astrocytes), however there are some rare cases of glioblastomas, presenting with a cystic lesion with misdiagnosis for the infection of the brain, we report a case of solitary cystic frontal in the young adult of glioblastoma mimicking toxoplasmosis.

2. Case Report

The patient, a 25-year-old male, presented with severe headache associated with vomiting and blurred vision with unilateral visual field loss on the right temporal, there is no loss of consciousness, convulsion, or weakness of the 4 limbs, with unremarkable past history. His neurological examination: during his admission patient was conscious, alert, cooperative, with a memory intact, for his cranial nerves the pupil equal and reactive to light, there is diplopia with hemianopia on the right temporal visual field, his motor and other remaining sensory were normal, reflex and coordination all are intact.

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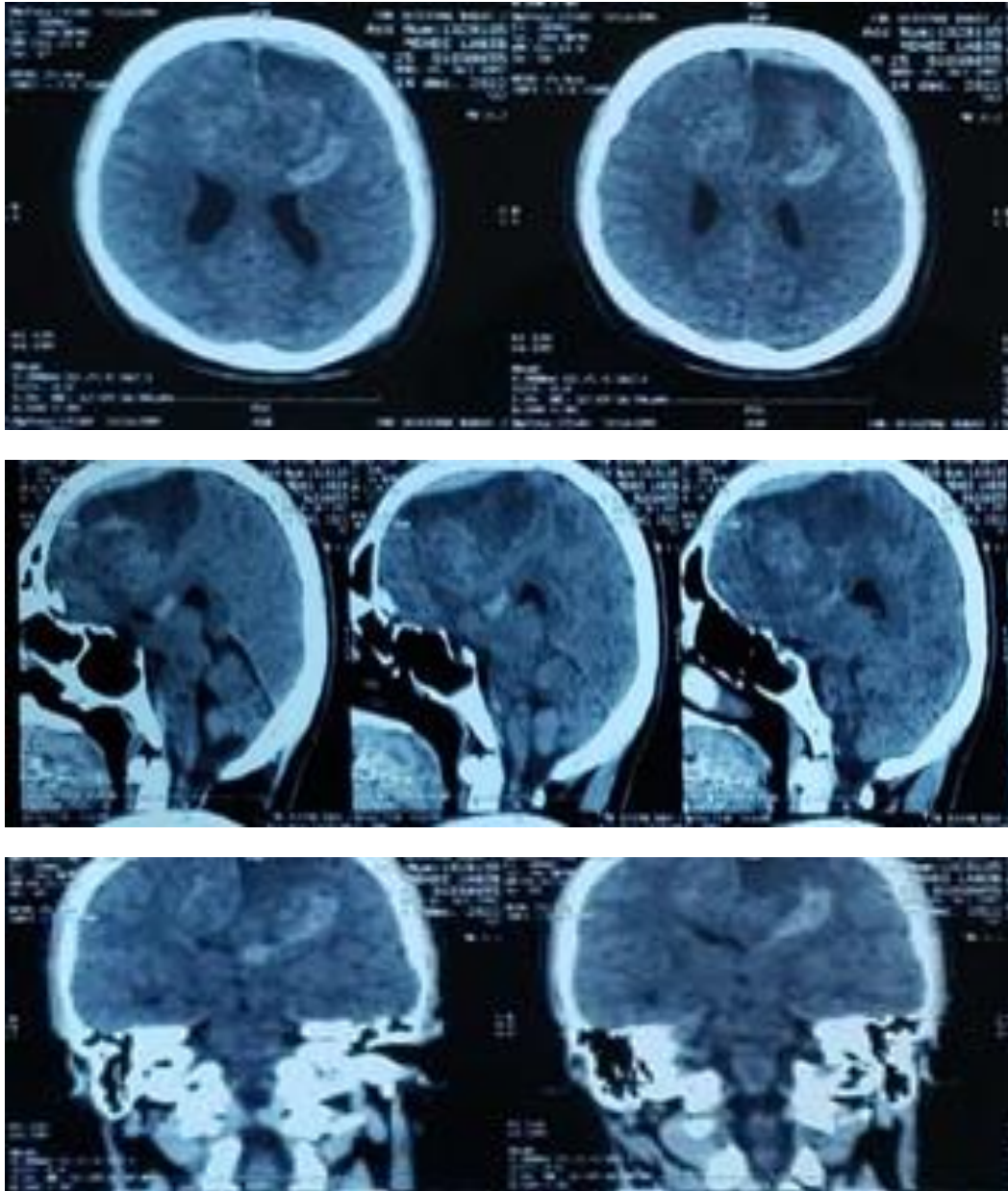


Figure 1 Computed topography (CT) scan of the cranium without contrast seen left frontal tumour for solid cystic measurement up to 64/56/47mm, associated subfalcine herniation of cerebral

Ophthalmological examination showed on right and left eyes, in conclusive there is papilledema in retina +stasis papillary to entire posterior pole.

All routine blood test the result was normal, there is no signs of infection ,then the patient planned to proceed the (STB) stereotactic biopsy of the lesion and then histological analysis the result showed there is large acidophilic necrosis patch's with infiltration of the inflammatory polymorphs peri vascular with numerous histiocytic and macrophages encysted granular eosinophils in form of Toxoplasmosis.

The serological test of the toxoplasmosis result all are negative, blind treatment patient was start (trimethoprim-sulfadiazine), before result of the test, and patient develop the visual loss completely and signs of intracranial hypertension, after operated and resect the tumor subtotal and perform second histological and immunohistochemistry analysis which last showed : A) Anticorps anti synapto positive , B) anticorps anti oligo2 positive, and C) anticorps anti GFAP positive.

Which is concluded there is glioblastoma composite neuro primitive grade IV (OMS) 2021.

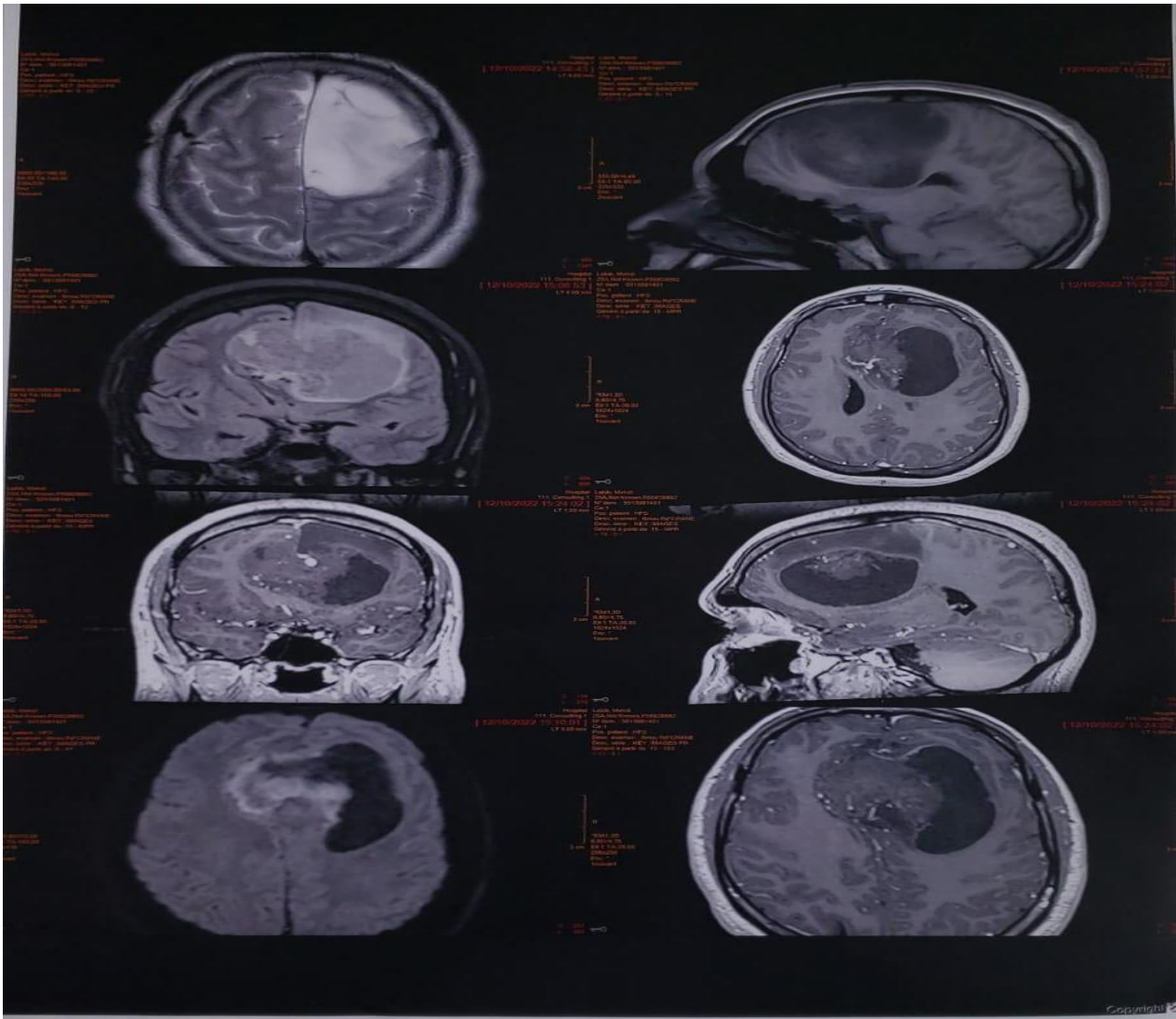


Figure 2 MRI of the brain: appearance suggestive of a left exophytic glioma with extension under the right medial falcoral frontal with a cystic part 64*56*47mm.

3. Discussion

Glioblastoma was first described by (Dr. Bradley W.L in 1880) most of the cases for the glioblastoma at grade 4 survival rate is too short it's up to 15-16 months and 5years , basically fast growing tumoral in CNS.

The clinical presentation of the glioblastoma has a lot of similarity for the infection of the intraparenchymal like toxoplasmosis ,and the other cystic form infections , most case has symptoms of speech difficult (45 percent) headache (33 percent),hemiparesis (22 present) ,and visual disturbance (11 percent),in which has also similar for GBM , the patient also developed kind of psychological symptoms , dermatological hypoesthesia ,and vertigo , in our case has progressive visual disturbance specially visual field and acuity , and lastly developed blindness and mild gait disturbance at the beginning and last complete paraplegic. In the case of cystic form glioblastoma solitary it's have great challenge with broad range of the differential diagnosis , including bacterial abscess, tuberculosis, Parasitic infections such as neurocysticercosis and toxoplasmosis, sarcoidosis and primary and secondary brain tumors, in rare cases infection can be mimic GBM [4].

In our case, the patient first was treated toxoplasmosis, based of the biopsy, however condition of the patient was worsening rapidly progressive the presentation of cystic lesion massively growing which is indicated to operate immediately, under subtotal accessible resection with biopsy and second pathological analysis which was last result was glioblastoma grade IV, in our case immediate referred to the radiotherapy and chemotherapy, but the patient developed cutaneous collection of the pus, which is made impossible to start his radio and chemotherapy [7].

4. Conclusion

Solitary Cystic Glioblastoma can presenting in atypical form which is mimicker to toxoplasmosis. That is can cause Daley of the definitive diagnosis and treatment on time. In this case is given important marks identification feature presentation of the early diagnosis and treatment of the Cystic form Glioblastoma. The neurosurgeons and neurologist need to be aware when the find cases cystic form lesion in the brain, and keep mind the GBM as main differential diagnosis , also some patient or case not beneficial the first biopsy still there chance for have the GBM and resection of lesion with repeating biopsy second time will give you definitive diagnosis and treatment , which it enhancing to fallow stander management of the case , including surgical resection up to accessible part, radiotherapy , and chemotherapy, also it will gives prediction of the outcome of the patient and tumor survival period ,and directing the appropriate treatment.

Compliance with ethical standards

Disclosure of conflict of interest

The authors do have not any conflicts of interest in this case report and any financial resources.


Statement of informed consent

Informed consent and verbal permission were obtained from the patient before the submission of this article. In addition, this article follows both the Consensus-based Clinical Case Reporting Guideline and the Recommendations for the Conducting, Reporting, Editing, and Publication of Scholarly Work in Medical Journals.

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