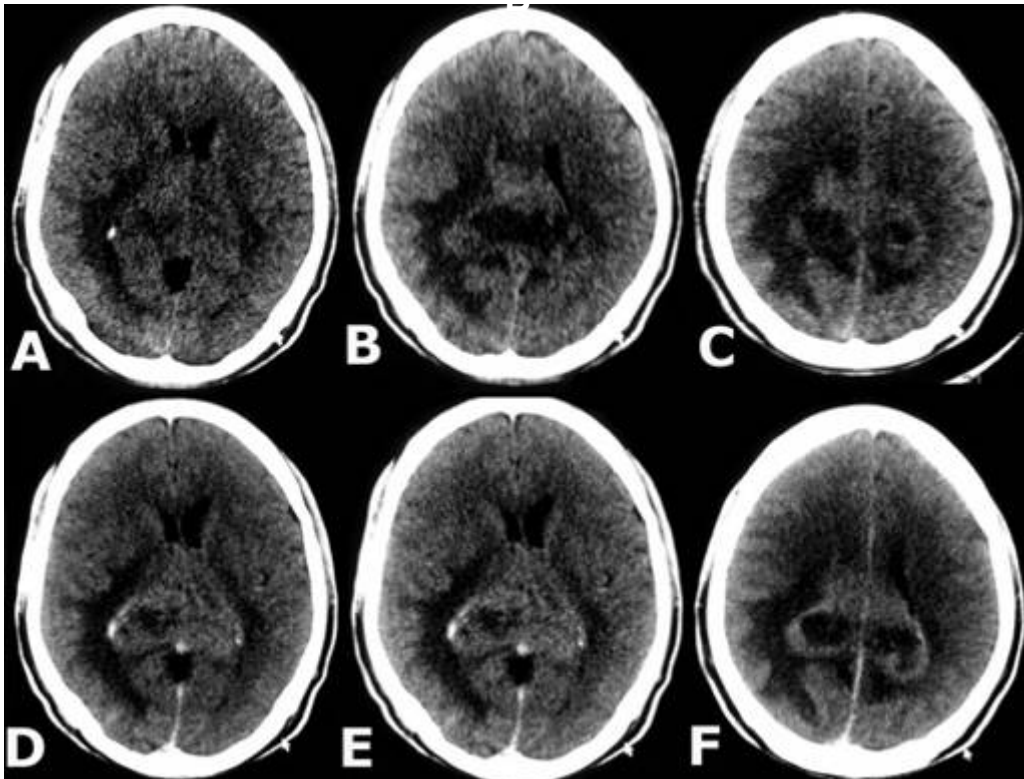


## PHOTO QUIZ

### What is your diagnosis?

A middle aged man presented with rapid and progressive deterioration in the sensorium. CT scan showed an ill defined butterfly shaped lesion involving the corpus callosum (Figs. 1A-F).



**Fig. 1.** CT scan of the brain;  
A-C. A hypodense lesion involving the splenium of the corpus callosum.  
D-F. The lesion was enhancing after contrast administration.

What is your diagnosis?

# Diagnosis: Butterfly Glioma of the Corpus Callosum

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Glioblastomas (GBMs) are the most primary malignant tumors of the brain in adults and commonly spread via direct extension along white matter tracts, including the corpus callosum.<sup>1,2</sup> When the corpus callosum is affected, GBMs display a characteristic bihemispheric involvement, resulting in a butterfly pattern.<sup>1,2</sup> In our case, the patient a 50-year-old male presented with a one month duration of rapid and progressive deterioration in the sensorium. There was no history of fever or trauma. On examination his general and systemic examination was unremarkable. Neurologically he was localizing to deep pain, eye opening and verbal response were nil. Pupils were bilaterally equal, but sluggishly reacting to light. Blood investigations were normal. CT scan showed an ill defined hypodense lesion in the corpus callosum that was enhancing at the periphery after contrast administration (the butterfly shaped lesion) (Fig. 1). Imaging findings suggested the diagnosis of butterfly glioma of the corpus callosum. Further investigations confirmed the diagnosis of GBM. However, relatives were not willing for further intervention. The corpus callosum is refractory to passage of edematous fluid<sup>3</sup> and resistant to infiltration<sup>1,2</sup> from remote lesions, and

it is unusual to see a bilateral pattern of hemispheric edema, unless the lesion invades the corpus callosum primarily. As the present case, a GBM with characteristic bihemispheric involvement and associated infiltration of the corpus callosum, results in a classic butterfly pattern.<sup>4,5</sup> GBM enhances heterogeneously after contrast injection. However, the mass effect and edema are usually better seen on magnetic resonance imaging.<sup>6</sup>

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