

ENDGAMES

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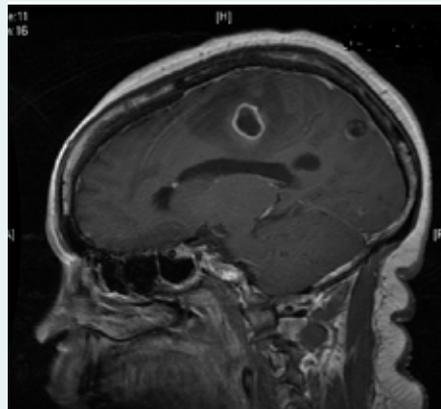


PICTURE QUIZ

Cerebral mass in HIV infection

A 34 year old woman from the Republic of Congo with known HIV infection presented with a one day history of sudden weakness of the right arm and mild headache. She had a history of cardiomyopathy, hypertension, and epilepsy. She had not travelled abroad since she had moved to the United Kingdom 10 years ago. Other than weakness in the extensor muscles of the right arm grade 4/5 on the Medical Research Council scale, the physical examination was unremarkable.

Her CD4 lymphocyte count was 750×10^6 cells/L and her differential white cell count and C reactive protein concentration were normal, as was the chest radiograph. Cultures for blood, urine, stool, and sputum were negative. She regularly took atazanavir, ritonavir, phenytoin, carbamazepine, carvedilol, and a fixed dose combination of tenofovir and emtricitabine. Magnetic resonance imaging (MRI) of the brain was performed (figure.)



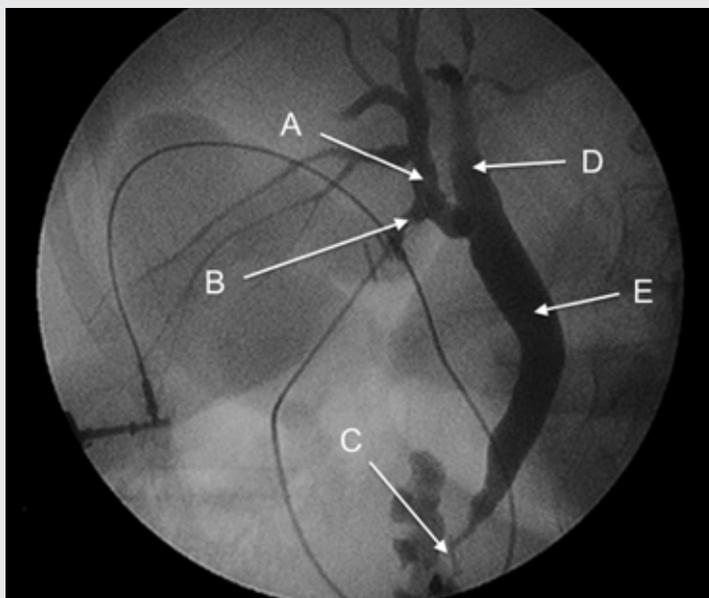
- 1 Describe the findings on MRI
- 2 What are the differential diagnoses?
- 3 What other tests might help pinpoint the differential diagnoses?
- 4 How would you manage and follow-up this patient?

Submitted by H Taha and S Das

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ANATOMY QUIZ

An intraoperative cholangiogram: unusual anatomy



Identify the structures labelled A-E in this intraoperative cholangiogram.

Submitted by Simon P Rowland and Hemant Sheth

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STATISTICAL QUESTION

What is a non-inferiority trial?

Researchers investigated the effectiveness of cognitive behavioural therapy delivered by telephone compared with the same therapy given face to face in the treatment of obsessive compulsive disorder. A randomised controlled non-inferiority trial study design was used. The intervention was 10 weekly sessions of exposure therapy and response prevention delivered by telephone or face to face. The aim of the study was to investigate whether the delivery of therapy by telephone was as effective as face to face sessions, the standard mode of delivery.

The primary outcome measures included the self report version of the Yale Brown obsessive compulsive disorder checklist measured six months after the completion of treatment. The total score for the checklist ranges from 0 to 40, with higher scores indicating greater obsessive compulsiveness. A prespecified non-inferiority margin of 5 units on the Yale Brown checklist was proposed.

Participants were 72 patients with obsessive compulsive disorder recruited from two psychology outpatient departments. In total, 36 participants were randomised to each treatment group. Using an intention to treat analysis, the difference between treatments (face to face sessions minus telephone) in the Yale Brown checklist score at six months' follow-up was -0.55 (95% confidence interval -4.26 to 3.15).

Which of the following statements, if any, are true?

- a) The null hypothesis states that in the population the mean Yale Brown checklist score at six months' follow-up for standard delivery was higher than that for telephone delivery by 5 units or more
- b) Analysis is based on the 95% confidence interval for the mean difference between treatment groups in the primary outcome
- c) It can be concluded that telephone delivery is not inferior in effectiveness to the standard delivery of face to face sessions

Submitted by Philip Sedgwick

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