

# A CASE OF BRAIN ABSCESS PRESENTING LIKE ALCOHOL WITHDRAWAL

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## Background

Brain abscess is a localized collection of necrosis or pus within the brain parenchyma. It can arise as a complication of infection or trauma and by direct or hematogenous spread.

Presenting symptoms are variable and depend on the number, size, and location of abscess(es) as well as the stage in the disease course.

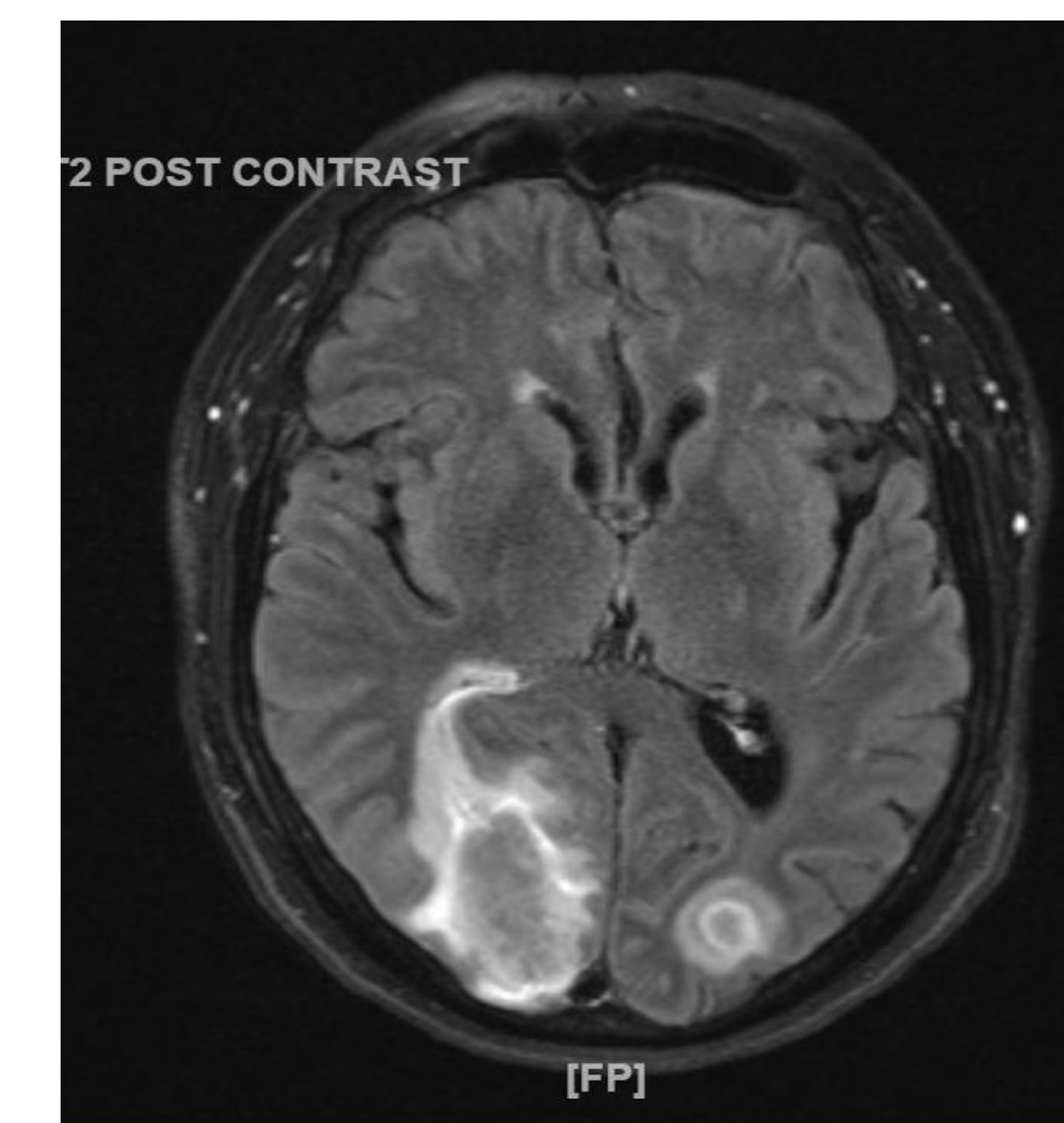
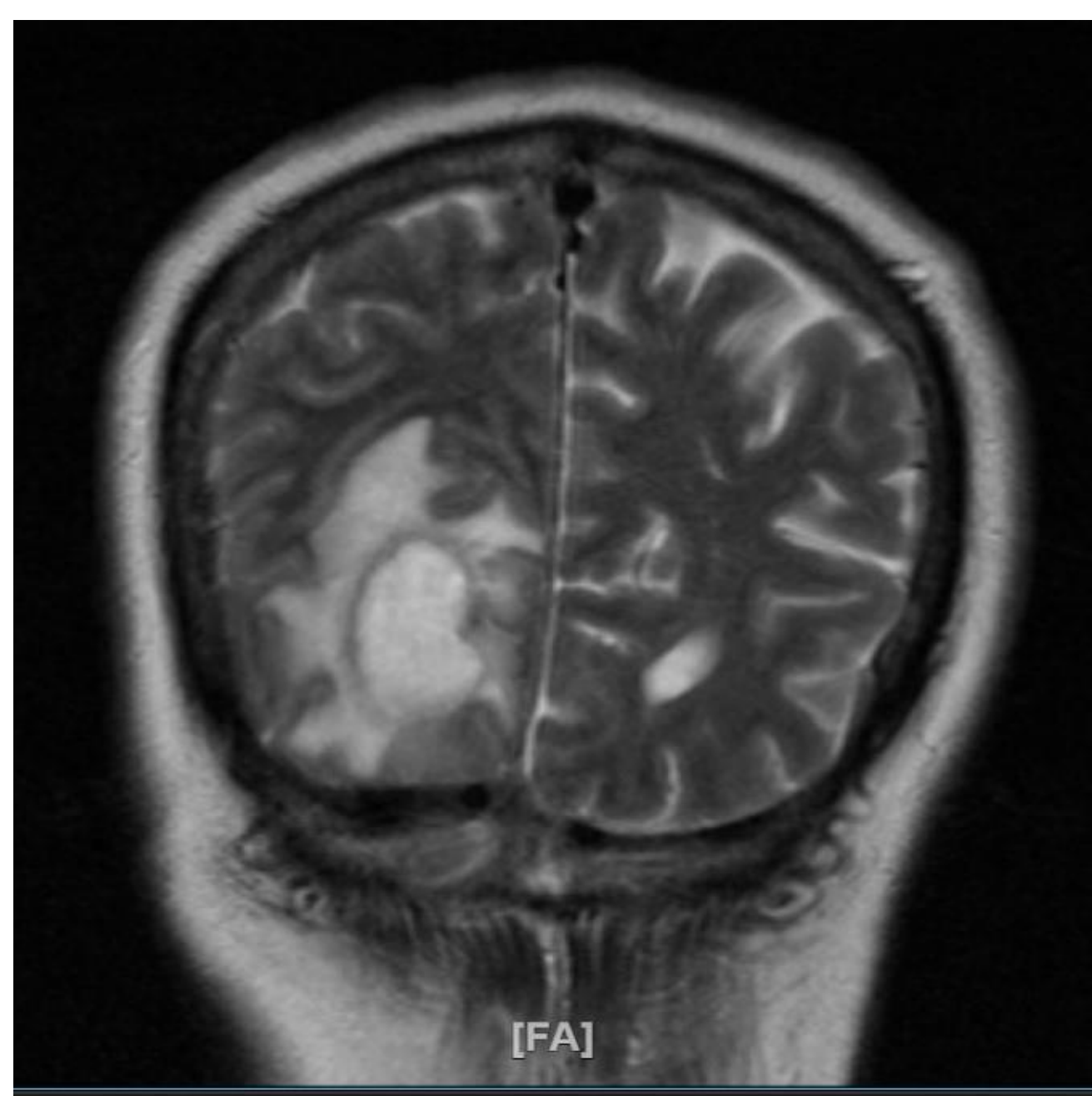
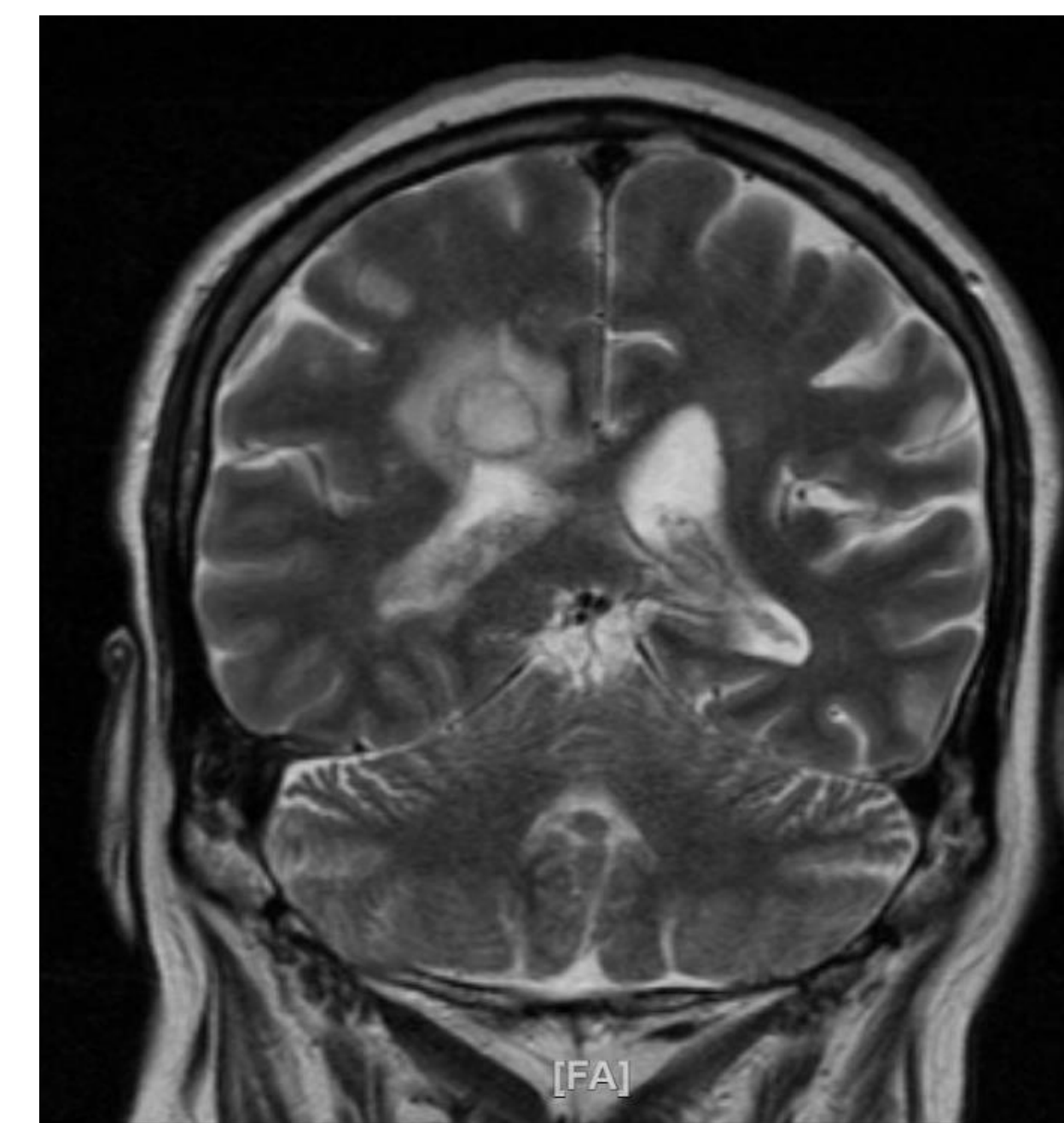
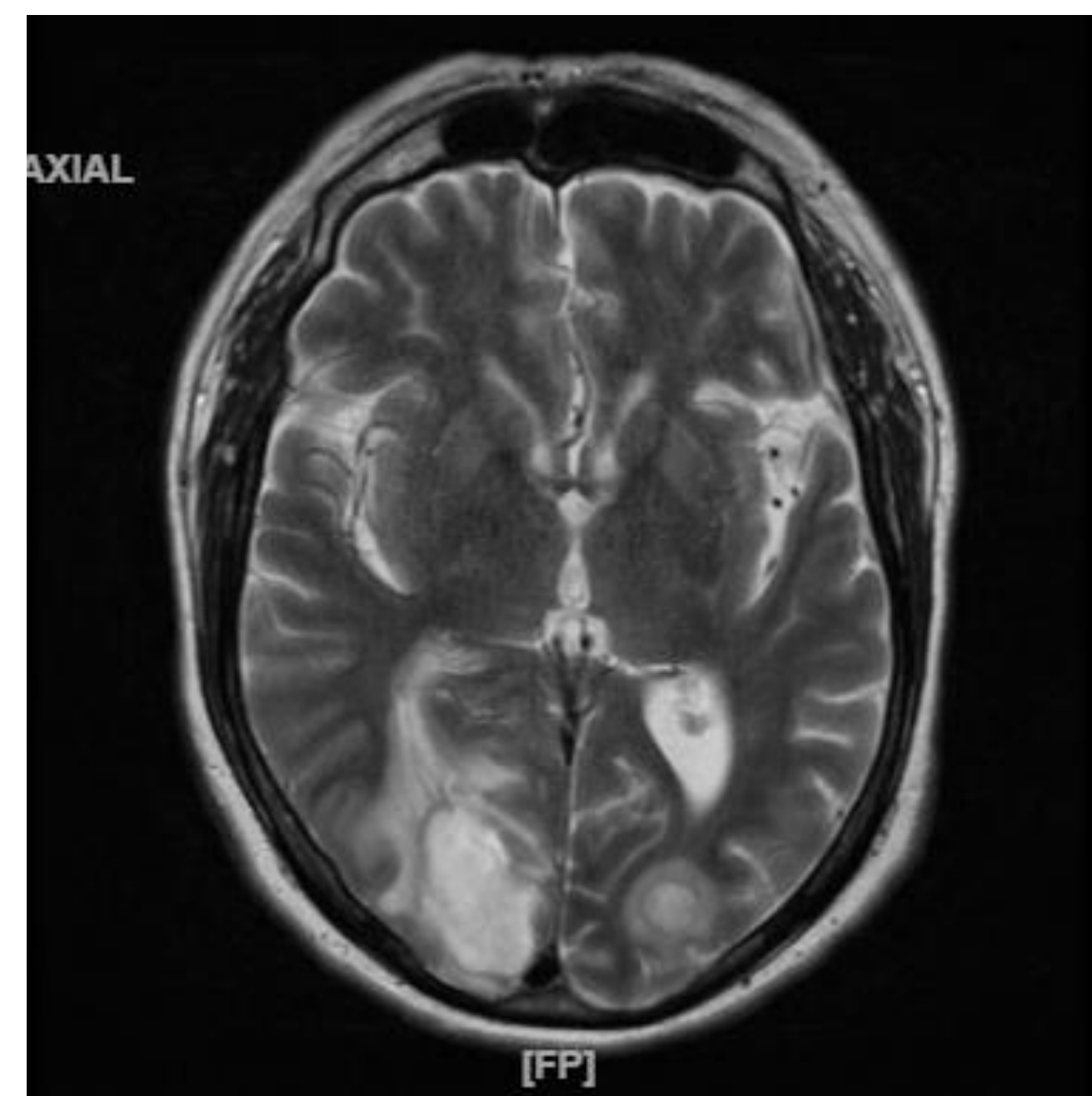
## Case Report

A 62 year old male with a past medical history of COPD, hypertension, polysubstance abuse, and depression presented to the hospital with vomiting, diarrhea, cough, and shortness of breath worsening over the preceding 3 days.

Upon arrival to the Emergency room, patient was febrile, tachycardic, hypertensive and with leukocytosis on blood work. Chest imaging was significant for right sided pneumonia. The patient was admitted for sepsis secondary to pneumonia and started on IV antibiotics. Shortly thereafter, the patient had an acute change in mental status marked by agitation, confusion, and vision impairment. He was upgraded to the ICU for concern for alcohol withdrawal given his history of alcohol abuse with conflicting reports by family and patient for timeline and quantity of recent alcohol use. This prompted CT head without contrast to be performed which revealed a large area of encephalomalacia versus mass versus infarct in the right posterior parietal occipital lobe. Neurology and infectious disease specialists were consulted and advised further neurologic workup. MRI of the brain with and without contrast revealed multiple ring-enhancing lesions with findings consistent for multiple cerebral abscesses with intraventricular extension.

The patient was emergently transferred to an outside hospital for higher level of care with neurosurgery services. Patient underwent right occipital washout and EVD placement. He was initiated on cefepime, vancomycin, and flagyl post-op. Brain abscess cultures grew rare *Bacillus* species (non anthracis) and rare *Enterococcus Faecalis*. Patient was discharged to short-term rehab with a PICC line for an 8-week course of unasyn.

## MRI Brain Images



## References

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4. Bodilsen, J., Dalager-Pedersen, M., Van de Beek, D., Brouwer, MC, & Nielsen, H. (2020). Incidence and mortality of brain abscess in Denmark: a nationwide population-based study. *Clinical Microbiology and infection*, 26(1), 95-100.

## Discussion

Brain abscess is a rare but potentially fatal disease with variable manifestations. Incidence in developed countries is reported 0.3-1.3 per 100,000 people per year. The most common symptoms include headache, fever, altered mental status, focal neurologic symptoms, nausea and vomiting. All cause mortality varies from approximately 5-30% in patients hospitalized with brain abscesses.

The most frequent microbial pathogens isolated from brain abscesses include staphylococcus aureus and viridian streptococci. Cultures, however, are negative in 14-34% of samples. Abscess formation most frequently occurs in the frontal lobe but may occur in any location.

Management includes surgical intervention for both diagnostic and therapeutic purposes as well as antibiotic therapy. Use of these combined modalities has improved prognosis for patients in recent decades.

## Conclusion

This case of brain abscess masqueraded itself as other pathologies and was complicated by a co-occurring diagnosis of pneumonia. Discovery of multiple brain abscesses necessitated transfer for neurosurgical intervention and a prolonged course of antibiotics. This highlights the importance of a wide differential for patients presenting with nonspecific symptoms. Furthermore, it depicts the need for prompt evaluation with any acute change in mental status, particularly when brain abscess is on the differential.

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