

Differential Diagnosis

DISCLAIMER: Educational only. Seek medical care.

Complaint

Severe headache, neck stiffness, fever, photophobia

Red Flags

- Severe headache (especially new onset or 'worst headache of life')
- Neck stiffness (nuchal rigidity)
- Fever
- Photophobia

Differentials

Meningitis (Bacterial, Viral, or Fungal) (High)

Supporting: Severe headache, Neck stiffness, Fever, Photophobia, 25-year-old, previously healthy

Tests: Lumbar puncture (CSF analysis for cell count, protein, glucose, Gram stain, culture, PCR), Blood cultures, Complete Blood Count (CBC), C-reactive protein (CRP), Erythrocyte Sedimentation Rate (ESR)

Subarachnoid Hemorrhage (SAH) (Medium)

Supporting: Severe headache (could be thunderclap), Neck stiffness, Photophobia

Tests: STAT CT head without contrast, Lumbar puncture (if CT negative and suspicion remains, check for xanthochromia)

Encephalitis (Medium)

Supporting: Fever, Severe headache, Photophobia (less specific, but possible)

Tests: Lumbar puncture (CSF analysis, PCR for viruses like HSV), MRI brain, Electroencephalogram (EEG)

Complicated Migraine (Low)

Supporting: Severe headache, Photophobia

Tests: Exclusion of other serious conditions

Workup

1. Immediate medical evaluation
2. STAT CT head without contrast (to rule out intracranial hemorrhage or mass effect before lumbar puncture)
3. Lumbar puncture with CSF analysis (cell count, protein, glucose, Gram stain, bacterial culture, viral PCR, especially HSV)
4. Blood cultures
5. Complete Blood Count (CBC)
6. C-reactive protein (CRP)
7. Erythrocyte Sedimentation Rate (ESR)
8. Basic metabolic panel (electrolytes, renal function)
9. Consider MRI brain if CT is negative and suspicion for encephalitis or other parenchymal pathology remains high