

CNS Infection

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Objectives

- Following this session the participant will:
 - Have a location based approach to CNS infections
 - Recognize classic and important CNS infections at imaging
 - Be able to differentiate important CNS infectious processes, such as TB vs. Toxoplasmosis and Abscess vs Tumour

Disclosures

- None.

Approach to CNS Infection

- Location
 - SD/ED, leptomeningeal, parenchymal, spine
- Classic and Important
 - HSV, CJD, abscess
- Key to differentiate
 - Toxo vs PCNSL, TB vs Pyogenic, abscess vs GBM/met/TCL
- Mimics

Approach to CNS Infection

- Spine
 - Spondylodiscitis, ED abscess, cord abscess/myelitis
 - TB vs pyogenic
 - Follow-up imaging

Location

- ED/SD
 - Empyema
 - From calvaria, sinuses, venous
 - Restricted diffusion
 - Greater mass effect than ED/SD hematoma

Leptomeningeal

- Meningitis
 - Viral – no imaging findings usually
 - Pyogenic – Clinical, CT prior to LP often
 - Sulcal FLAIR and enhancement
 - Granulomatous – subacute
 - TB, Fungal
 - Thick enhancement
 - Basal vasculitis - CVAs

Parenchymal

- Cerebritis to Abscess stages
- Encephalitis
- By Pathogen – Pyogenic, Fungal/TB, Viral, Parasitic, etc

Classic and Important

- HSV
- CJD
- Abscess
- Cysticercosis

Key to Differentiate

- TB vs Pyogenic
- Toxo vs PCNSL
- Abscess vs GBM/Met/TDL

Mimics of Infection

- TDL vs abscess
- SAH vs Meningitis vs LM carcinomatosis
- SD/ED hematoma/hygroma vs empyema
- Sarcoidosis (?infectious?...)