

Time: 2:18:00 PM - 2:24:00 PM

Presenter: Benjamin Howe, MD

Title of MR Imaging of Perineural Spread of Pelvic Malignancy: A Case-Based Imaging Review

Abstract:

Institution: Mayo Clinic

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Modality: MR

Organ System: MSK

Purpose: Perineural spread of malignancy in head and neck and breast cancer is well described. Local perineural spread of malignant tumors occurs in pelvic malignancies, particularly prostate and cervical cancer. Unlike hematogenous or lymphatic spread, nerve itself may act as a conduit for malignancy allowing antegrade and retrograde dissection to affect multiple nerves of the lumbosacral plexus. The purpose of this educational exhibit is to review the MR imaging findings of perineural spread of malignancy and discuss the pathway which allows spread from the pelvic organs to the lumbosacral plexus and sciatic nerve. **Content Organization:** 1. Review the clinical and imaging features that distinguish perineural malignancy from radiation neuritis and neuropathy associated with chemotherapy. 2. Discuss the nerve anatomy of the pelvis and the pathway that allows for disease to spread to the lumbosacral plexus. 3. Present MR imaging techniques for evaluating perineural spread of pelvic malignancy. **Major Teaching Points:** Perineural malignancy occurs in pelvic malignancies and MR is a valuable tool for identifying perineural spread of disease and aids in planning of open fascicular biopsy when indicated.