

Alexander AP, Rutland MD, Armstrong M, Mott N, Lotrich K, McIntosh M. Spinal Arachnoid Calcifications vs. Arachnoiditis Ossificans-A Discovery of Two Disease Processes. Hardin Simmons University, Department of Physical Therapy, Abilene, TX 79698. Poster presentation AACA Meeting, July, 2021 (Virtual)

INTRODUCTION. Doctor of physical therapy students found intrathecal calcifications in the spinal cord of a cadaver. **RESOURCES.** An embalmed 72-year-old male cadaver dissected over 8 months. Cause of death included metastatic lung cancer, chronic obstructive pulmonary disease, and coronary artery disease. **DESCRIPTION.** Upon dissecting the spinal cord, multiple thoracic and lumbar intrathecal calcifications were found, measuring 3-8 mm in diameter and 1mm in thickness. There is no evidence of lumbar surgeries or laminectomy. No displacement of the spinal cord or nerve roots was noted. Differential diagnosis included asymptomatic calcification plaques of the dura mater or intrathecal ossification associated with chronic arachnoiditis. Calcified asymptomatic calcification plaques can develop with no neurological symptoms and may be an incidental finding. These calcifications could be precursors to spinal arachnoid ossificans. Arachnoiditis ossificans is a rare chronic condition, typically confined to the thoracic and lumbar regions, which may follow spinal trauma, major spinal surgery, or myelography. Other contributing factors for arachnoiditis ossificans can include renal failure, adverse side effects from cancer treatment/medications, and/or more specifically neoplastic arachnoiditis ossificans. Patients with arachnoiditis ossificans often present with debilitating neurologic deficits. Patients could complain of chronic low back pain, leg pain, paresthesia, and weakness. Sensory and motor impairments would likely follow myotome and dermatome patterns. Furthermore, concerns may exist with urinary incontinence. Diagnostic imaging may reveal calcifications on radiographs, MRI- 1 and MRI -2, and CT scans. Neural mobilization may assist in relief of symptoms. **SIGNIFICANCE.** Discovering intrathecal calcifications allowed students to research two disease processes, evaluate diagnostic imaging and hypothesize initial insult of injury and clinical presentation