

**Setting:** Hospital-based outpatient clinics.

**Results or Clinical Course:** Patient 1: Developed headache. Ultimately diagnosed with glaucoma exacerbation, requiring emergency surgery. Patient 2: Blurry vision lasted one week, resolved. Ophthalmologic evaluation was unrevealing. Patient 3, 5: We advised all steroid is systemic; avoid injections containing steroids. Patient 4: Spine injections without steroid were successful (medial branch blocks, radiofrequency).

**Discussion:** Spine pain is a most common reason for medical visits. Spine injections containing steroid are utilized to decrease inflammation, pain. Rarely, ophthalmic complications have been associated with steroid therapy, via injections and other routes. Previous literature reports posterior subcapsular cataracts, glaucoma, others. Dosage, duration, and specific formulation of steroid may affect glaucoma risk. Any steroid route may have systemic effects.

**Conclusions:** Physicians need awareness of risk of ophthalmic complications associated with steroid and spine injections. Injected steroid becomes systemic. Consider treatments without steroid; they may be effective.

## Poster 452

### Neuropathic Pain Due to Metastatic Disease to the Sacrum Managed with Spinal Cord Stimulation - A Case Report.

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**Disclosures:** T. Chai, No Disclosures: I Have No Relevant Financial Relationships to Disclose.

**Case Description:** Case 1 - The patient was diagnosed with colon cancer in 2001, status post chemotherapy, radiation therapy, and surgery. He developed recurrent disease involving the sacrum and sacral epidural space, with extension into neuroforamina at levels S1-S3, among other findings. The patient complained of intractable sacral pain radiating to the bilateral lower limbs, despite use of opioid and non-opioid analgesics. He obtained transient relief with epidural steroid injections. Case 2 - The patient was diagnosed with uterine sarcoma in 2008, status post surgery and numerous lines of chemotherapy, with evidence of recurrent disease involving the presacral space, extending in part to the exiting right sacral nerve roots, right sciatic nerve, and right piriformis muscle. The patient reported unremitting pelvic/sacral pain radiating primarily to the right lower limb, despite being on a pain medication regimen consisting of opioid and non-opioid analgesics. Temporary relief was obtained with epidural steroid injections.

**Setting:** Tertiary Cancer Hospital.

**Results or Clinical Course:** Case 1 - The patient underwent a spinal cord stimulator trial for sacral and radicular pain, with a single octrode epidural lead placed to the level of T8. He reported greater than 50% pain relief and thus subsequently underwent permanent spinal cord stimulator implantation using dual octrode epidural leads. The patient reported improved pain control and functional capacity as a result. Case 2 - The patient underwent a spinal cord stimulator trial for sacral and radicular pain, with dual octrode epidural leads placed at the level of T8. She reported 95% relief during the trial and subsequently

underwent permanent spinal cord stimulator implantation. She reported improved pain control and functional capacity as a result.

**Discussion:** Neuropathic radicular pain due to metastatic sacral disease was addressed with a stepwise, multimodal pain management approach, including the utilization of opioid and non-opioid analgesics, epidural steroid injections, and ultimately with spinal cord stimulation.

**Conclusions:** Spinal cord stimulation should be considered for management of refractory neuropathic pain due to malignancy.

## Poster 453

### Role of Biomechanics of Spine and Facet Proprioception in Prevention of Fall and Unsteadiness of Gait.

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**Disclosures:** M. Sinaki, No Disclosures: I Have No Relevant Financial Relationships to Disclose.

**Objective:** The aim of this study was to determine the outcome of dynamic counterstrain and proprioceptive stimulation of specific vertebral facet joints to achieve reduction in risk of falls by reducing gait unsteadiness.

**Subjects and Methods:** We studied two groups of subjects. Group A consisted of 36 patients who had gait disorder and propensity to falls, referred to our outpatient clinic for fall prevention. To meet the inclusion criteria all had to have comprehensive musculoskeletal and neurological evaluations. Subjects in this group were not able to return for follow up due to the distance from our institution. They all signed the consent form and were videotaped. Group B consisted of twelve subjects who were able to return for follow up and all underwent 2 supervised training sessions in our outpatient clinic. They underwent formal laboratory gait analysis and computerized dynamic posturography at baseline and follow up. They were instructed for a 4-week spinal proprioceptive extension exercise dynamic (SPEED) program to be performed at home with use of a weighted kypho- orthosis (WKO). The WKO applied properly accentuates a patient's perception of spinal joint position.

**Setting:** Outpatient

**Interventions:** All subjects had the trial of spinal proprioceptive extension exercise dynamic (SPEED) program.

**Main Outcome Measures:** Subjects had either gait lab analysis, computerized dynamic posturography and strength evaluation or were videotaped.

**Results or Clinical Course:** All subjects in group A were videotaped before and after WKO trial and displayed noticeable improvement often to their surprise. They decided to implement the program at home. Subjects in group B after a 4-week intervention, showed a significant change in balance ( $P=.003$ ) and several gait parameters ( $P<.05$ ). Mean back extensor strength improved significantly from baseline ( $144.0 \pm 46.5$  N) to follow-up ( $198.6 \pm 55.2$  N;  $P<.001$ ).

**Conclusions:** Balance, gait, and risk of falls improved significantly through stimulation of the vertebral facet joint proprioception by application of mechanical counterstrain applied to specific areas of spine. This method of intervention might potentially lead to novel investigations for managing patients with unsteadiness of gait and propensity to falls.