Introduction: Zoledronic acid is an intravenous bisphosphonate known for its anti-resorptive effects and osteoporotic fracture risk reduction. A common adverse reaction with this medication is mild to moderate flu-like symptoms, which are transient and attributed to an acute phase reaction post treatment. A less common side effect, of oral ulcers is associated with oral bisphosphonates, attributed to incorrect oral intake but the real mechanism is still not well understood. We present a patient that developed oral ulcers after use of both oral and intravenous bisphosphonates, leading to suspicion of other underlying mechanisms other than incorrect oral intake of bisphosphonates. Case Report: We present a 73 year old male with history of mild primary hyperparathyroidism and osteoporosis. Patient opted for medical management of his mild primary hyperparathyroidism in addition to having non-localizing studies. Treatment for osteoporosis was recommended due to femoral neck T score -2.4, FRAX score of 3.3% risk for hip fractures and history of low impact right foot fracture. The primary care team started treatment with alendronate 70 mg once a week, but patient developed oral blisters within a week of starting the treatment. Stopping alendronate led to resolution of the oral symptoms without any additional supportive treatment. Patient was later started on intravenous zoledronic acid, attributing the previous history of oral ulcers to a local effect of the oral bisphosphonates. Two days after the zoledronic acid infusion patient developed fatigue, fever, and oral ulcers. The oral ulcers were described as painful, located at the base and lateral aspects of the tongue. The ulcers later progressed to the buccal mucosa. No gingival ulcers were reported. Development of the oral blisters led to significant discomfort in eating and talking. Patient was treated with liquid nystatin 10,000 units/mL and lidocaine 2% viscous liquid. Patient had resolution of the painful ulcers approximately 2 weeks after the initial appearance. No recurrence of the oral ulcers has been reported, 4 months post treatment with zoledronic acid. Discussion: Intuitively oral bisphosphonate induced mucosal injury is
thought to be related to direct contact of the tablet with the oral mucosa or inappropriate ingestion of the medication and is not thought to be a systemic reaction. Our patient developed oral ulcers from both oral and intravenous bisphosphonates suggesting a possible systemic mechanism involved. Understanding potential side effects such as mucosal injury from intravenous bisphosphonates will be helpful for patient education and timely care.

Presentation: No date and time listed