

# Incidence of COVID-19 After an Interventional Pain Procedure: A Retrospective Study Eric Muneio, DO; Shivani Patel, DO; Yash Mehta, DO; Akhil Chhatre, MD The Johns Hopkins Hospital



# **Objectives**

- -The COVID-19 pandemic has impacted the care of patients with chronic pain.
- Corticosteroid alters immune system response and makes patients vulnerable to illness, including Coronavirus.
- Our study seeks to establish the incidence of COVID-19 after an interventional pain procedure.

#### References

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# Design

- A retrospective chart review was conducted to identify all patients undergoing interventional procedures from March 1, 2020 to September 30, 2020.
- Group one consisted of patients who received corticosteroid during their procedure and group two consisted of patients who did not receive corticosteroid.
- COVID-19 tests up to four weeks after the procedure were recorded.

#### Results

- 899 procedures were analyzed.
- -140 patients in group one and 90 patients in group two were tested for COVID-19. Two patients tested positive for COVID-19 both patients received corticosteroid.
- The group receiving corticosteroids (M=0.29, SD= 1.43) had a higher incidence of COVID-19 positive tests than patients not receiving corticosteroids (M=0, SD=0).
- -There was no significant difference in the incidence of COVID-19 between the two groups (t=1.55, p=0.15).

### Conclusion

- It is known that corticosteroid injections alter the immune system response. Our study demonstrated that the use of corticosteroid in an interventional procedure does not increase the risk of contracting COVID-19 when compared to patients who did not receive corticosteroid.
- Despite showing no increased risk of contracting COVID-19, we recommend counseling patients on the immunomodulatory effects of corticosteroid injections.
- After the patient undergoes an interventional pain procedure it is essential for them to continue to wear a mask, practice social distancing, and follow CDC guidelines to decrease the risk of spreading the pathogen during the pandemic.