Recent hydromorphone injection and risk of incident infective endocarditis among people who inject drugs in Toronto.

We investigated whether injecting the prescription opioid hydromorphone increases the risk of developing infective endocarditis (IE) among people who inject drugs (PWID) in Toronto, Canada.

BACKGROUND

Infective endocarditis is a life-threatening infection of the heart valves. It occurs when baterica enters the bloodstream.

It has been hypothesized that injecting insoluble, controlled-release formulations of prescription hydromorphone leads to drug preparation residue, encouraging equipment reuse and increasing the risk of bacterial infections like IE.

Past research from health administrative data has observed an association between hydromorphone prescription and IE incidence.

METHODS

We linked baseline survey data from 514 participants in our cohort study (collected between November 2018 and March 2020) with health administrative databases to track IE hospitalizations over a one-year follow-up period.

KEY FINDINGS

Exposure Groups: Participants were categorized based on their self-reported injection habits in the prior 6 months: 191 recently injected hydromorphone, 32 injected non-hydromorphone prescription opioids (such as morphine or oxycodone), and 291 injected other opioids or drugs (such as unregulated fentanyl or heroin).

- **Result**: no statistically significant association was found between hydromorphone injection and incident IE compared to either control group.

CONCLUSION

Although no association was found in our study, IE remains a serious and potentially life-threatening complication among PWID, and efforts are needed to reduce its incidence among this population at risk.

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