

Epidemiology of Substance Abuse-Related Spinal Epidural Abscesses at the Ohio State University Medical Center

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Introduction

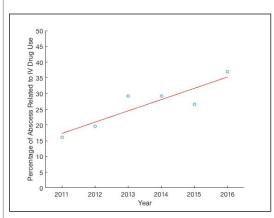
The United States is in the midst of an opioid and intravenous substance abuse (IVSA) epidemic, resulting in dramatically increased rates of systemic infections including those involving the spine. We present a retrospective study of patients treated for spinal epidural abscesses (SEA) at a single institution over a five-year period.

Methods

We conducted a retrospective correlational study involving all patients treated at the Ohio State University Medical Center for spinal infections between January 2011 and December 2016. We queried an electronic database for all spinal epidural infection-related diagnoses and analyzed clinical presentation and progress until loss to follow-up.

Results

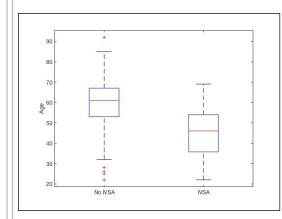
1. Rate of SEA Attributable to IVSA is Increasing



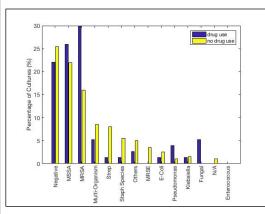
A total of 277 patients met inclusion criteria for this study. Overall, 77 patients (28%) had a history of IVSA. The yearly percentage increased from 16% in 2011 to 37% in 2016 (R = 0.9, p<0.01).

2. SEA Patients with IVSA History are Significantly Younger than SAE Patients without IVSA History

Median age of patients with SEA and IVSA is significantly lower than those without history of IVSA (46 and 61, p<0.005).

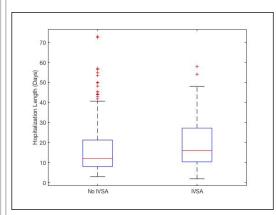


3. SEA Patient with IVSA History harbor more drug-resistant Organisms



The most common isolated organism in IVSA patients was methicillin resistant staphylococcus aureus (30%), as compared to 15% in non-drug users (p<0.01)

4. SEA Patient with History of IVSA Utilize more Hospital Days



Length of hospitalization was significantly longer for IVSA patients as compared to non-drug users (median 16 versus 12 days; p=0.018).

Conclusions

Along with the opioid epidemic, the rate of SEA attributable to IVSA has steadily increased at our center. This unique subgroup is significantly younger, harbors a greater percentage of drug-resistant organisms, and requires longer hospitalization stays as compared to the standard population who develop SEA. Management of SEA in these patients represents a unique societal and economic burden, which requires further elucidation to help better guide future public policy initiatives.

Learning Objectives

- The yearly rate of spinal epidural abscesses attributable to intravenous drug abuse has steadily increased
- This subgroup is younger, harbors a greater percentage of drugresistant organisms, and requires longer hospitalization stays
- Tailored public policy initiatives will be required to address the unique needs of these patients