

# Systemic Medical History in Patients Who Developed Post- injection Endophthalmitis verses Those Who Did Not

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# Financial Disclosures

- ▶ None



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# Summary



- ▶ Does systemic health contribute to an individual's risk for the development of injection associated endophthalmitis?
- ▶ Patients who developed endophthalmitis are compared to patients who did NOT develop endophthalmitis after intravitreal injection by the same provider around the same time.
- ▶ Further research is needed to expand the number of patients and elicit potential statistical significance.

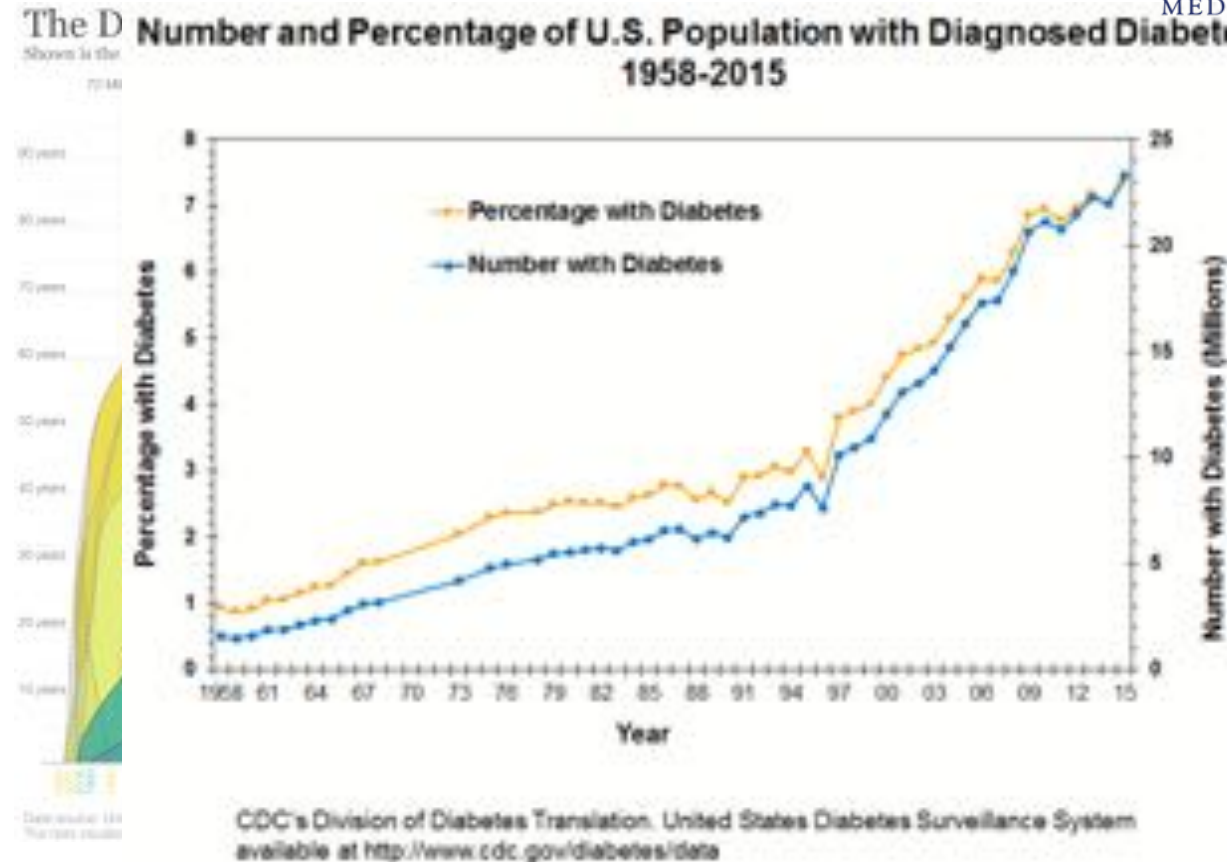
# Background



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- ▶ Population Trends

- Age:
- Diabetes:



- ▶ Intravitreal injections have become central in retina practices across the world.

Roser, M. (2017). The Demography of the World Population from 1950 to 2100 [Digital image]. Retrieved 2020, from

<https://ourworldindata.org/age-structure>

CDC's Division of Diabetes Translation, United States Diabetes Surveillance System.

From [https://www.cdc.gov/Diabetes/prevention/slides/long\\_term\\_trends.pdf](https://www.cdc.gov/Diabetes/prevention/slides/long_term_trends.pdf)

# Background

- ▶ Rates of Injection Associated Endophthalmitis:
  - 0.019% – 0.09%
    - > 5.9 million injections performed in USA in 2016
    - = 531,000 cases of Injection Associated Endophthalmitis per year
- ▶ Significant effort has been made to identify methods to decrease the risk for the development of injection associated endophthalmitis.





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# Research Question:

- ▶ Does the systemic health of a patient contribute to the risk of developing injection associated endophthalmitis?

# Methods

- ▶ A retrospective comprehensive chart review of two groups:
  - 1: Those who received an intravitreal injection and were subsequently diagnosed with endophthalmitis;
  - 2: Those who received an intravitreal injection by the same provider and around the same time as group 1 who subsequently did not develop endophthalmitis.
    - Four patients were chosen to be included in group 2 for every one patient in group 1

# Results



## Group 1 (endophthalmitis)

34 individuals (36 cases among 6823 intravitreal injections, a rate of 0.0053%) were diagnosed with injection associated endophthalmitis between 2009 and 2019.

## Group 2 (control)

144 patients received intravitreal injections by the same provider and around the same time as those in Group 1, none of which developed endophthalmitis.



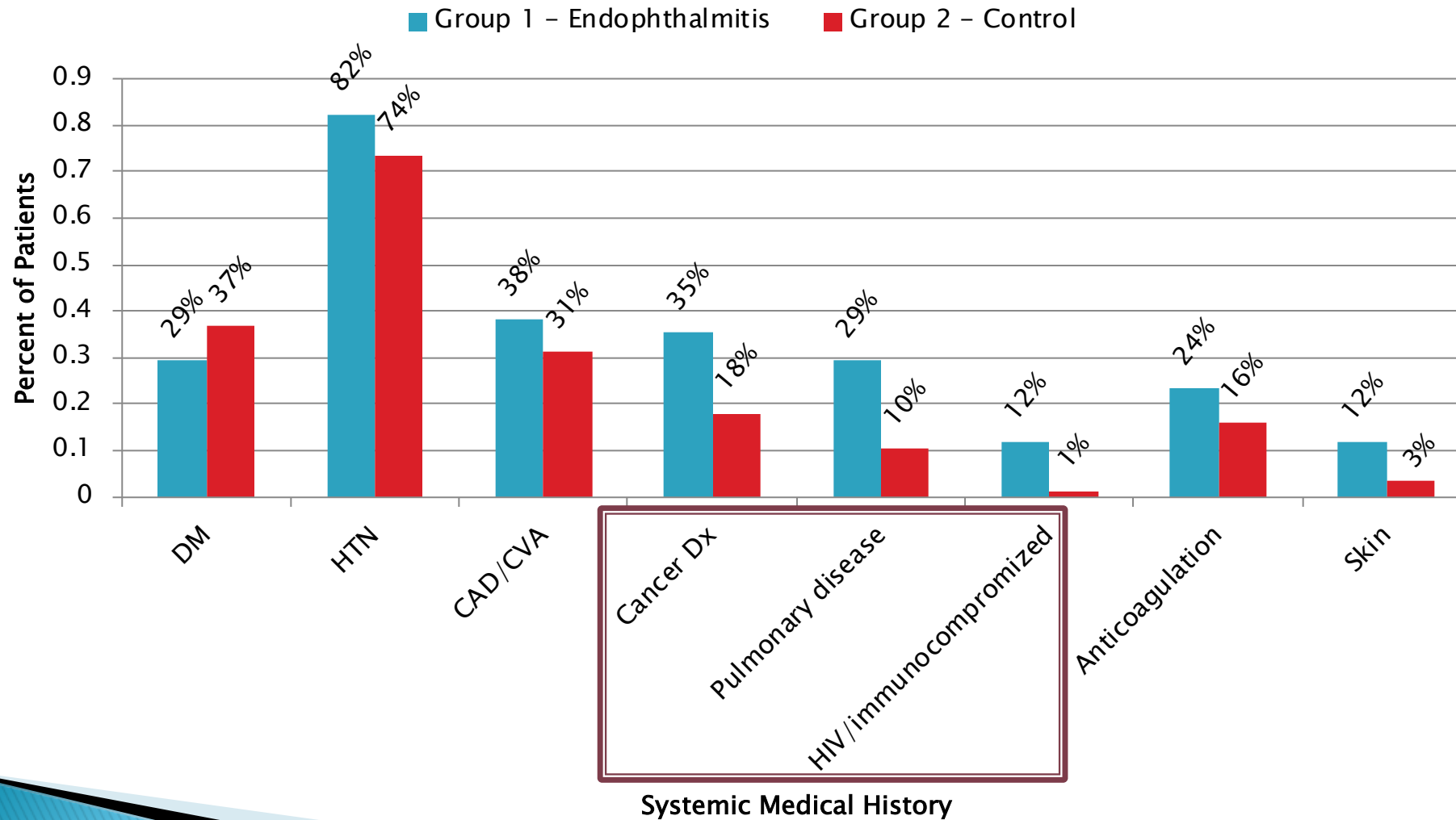
# Results:



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		Group 1 (Endophthalmitis)	Group 2 (Control)
# of patients		34	144
Average age		75.9	73.6
#F (%)		22 (64.7%)	74 (51.4%)
# of prior Injec		19.7	12.6
# patients who received bilateral injections		7 (20.6%)	24 (16.7%)
Underlying Diagnosis	nAMD	25 (73.6%)	87 (60.4%)
	RVO	6 (17.6%)	25 (17.4%)
	PDR/DME	3 (8.8%)	31 (21.5%)
	Other	0	1 (0.6%)

# Results

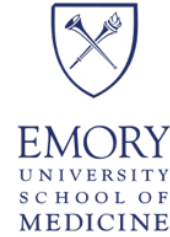


# Conclusions



- ▶ Systemic medical conditions may play a role in those who developed endophthalmitis after receiving an intravitreal injection verses those who did not
- ▶ The results of this study can potentially be utilized in counseling patients on their individual risk with intravitreal injections.
- ▶ Further data is being gathered from additional sites for statistical analysis

# Resources



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