

Neuro-intervention not without risk: Potential harm to providers

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Introduction

It is the nature of the physician to focus on the risk to their patients while disregarding possible detriment to themselves. However, literature from interventional cardiology and interventional radiology has begun to document procedural radiation exposure and the increase in cataracts amongst their colleagues. The neuro-interventional community is lagging behind in documenting these occupational hazards.

Methods

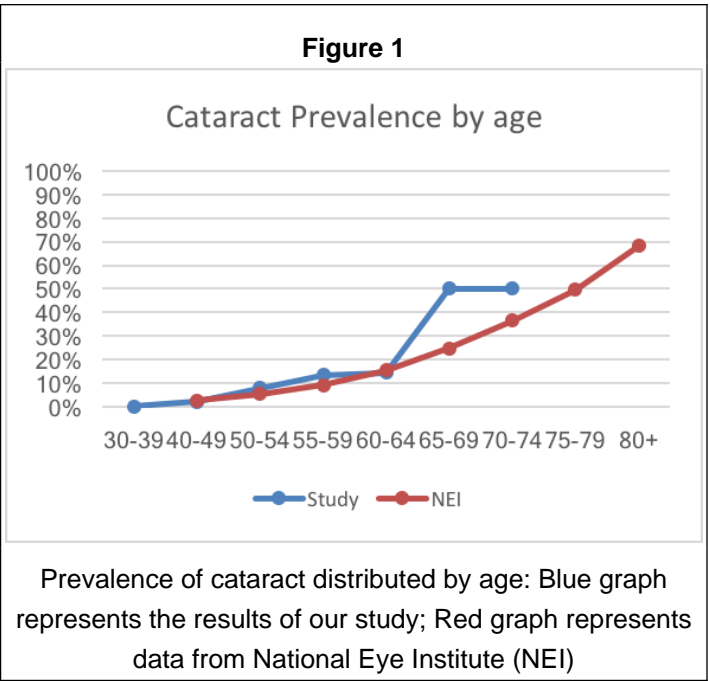
We designed a 9-question survey submitted to members of the Society of Neurointerventional Surgery (SNIS) in order to assess the prevalence of cataracts and malignancies in this unique population and to collect information regarding the use of protective equipment. The intent was to evaluate the responder’s demographic characteristics, radiation exposure, utilization of radiation safety lead and goggles, and the prevalence of cataracts and malignancies.

Results

One-hundred and nineteen (23.0%) (12 females and 107 males) out of 518 SNIS members responded to the survey. The mean age of the respondents was 47.1±9.7years. The average number of years in practice was 15.1±10.5years (Range:3-49years). One-hundred and sixteen (97.5%) respondents reported “always” using protective lead apron. However, only half (n=64, 53.8%) reported using radiation safety goggles “always” or “most of the time”; about one-third (n=35, 29.4%) reported “never” using radiation safety goggles. Cataracts had been diagnosed in 8 (6.7%) of the respondents. When compared to the National Eye Institute Data on cataract prevalence, our study showed a similar prevalence in participants aged 30 to 64, and a sharp increase in prevalence in ages 65 to 74 (Figure 1). Seven (5.9%) malignancies were reported, without significant predilection to the right or left side of the neuro-interventionalist’s body.

Conclusions

Neuro-interventionalists often perform procedures that require extensive patience and meticulous precision, leading to extended exposure to ionizing radiation. It is important to document the risk of these procedures to the physician and promote methods to decrease radiation exposure.



Learning Objectives

- 1) Radiation exposure is a serious risk for neuro-interventionists
- 2) There may be an increased incidence of cataracts in neuro-interventionists as a result of extensive radiation exposure

References

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