



Cumulative Incidence of Retinal Detachment Repair Following Cataract Surgery

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Background

The cumulative incidence and risk factors of retinal detachment following cataract surgery is an active area of research and varies among sites. Although a prior history of retinal detachment is generally regarded as a risk factor for retinal detachment following cataract surgery, the magnitude of that association is not well established. We are interested in quantifying the association between history of retinal detachment and retinal detachment following cataract surgery. Additionally, we are interested in characterizing the cumulative incidence of retinal detachment in our network following cataract surgery as a function of time.

Methods

Using ATLAS, we made cohorts for patients who either underwent a complex cataract procedure that was identified by CPT code 66982, or a standard cataract removal that was identified by CPT 66984. All patients underwent the procedure for the first time and had at least 365 days of prior observation in our database. The outcome was identified by any of the CPT codes for retinal detachment repair that included CPT 67101, 67105, 67107, 67108, 67110, 67112 and 67113. The time between outcome and exposure was adjusted from 90 to 3650 postoperative days to calculate cumulative incidence. Additionally, we performed a subgroup analysis for patients with a history of retinal detachment repair in each cohort. The study data came from the Columbia University Irving Medical Center (CUIMC) 2018q4 database. Our methods were approved by institutional review board (IRB#AAAS8977).

Results

The 10-year incidences of retinal detachment repair for CPT code x82 and x84 were approximately 1.3%. The 10-year incidences of retinal detachment repair for the subgroups of patients who had a prior retinal detachment repair for those cohorts were 4.5% and 12.0%, respectively.

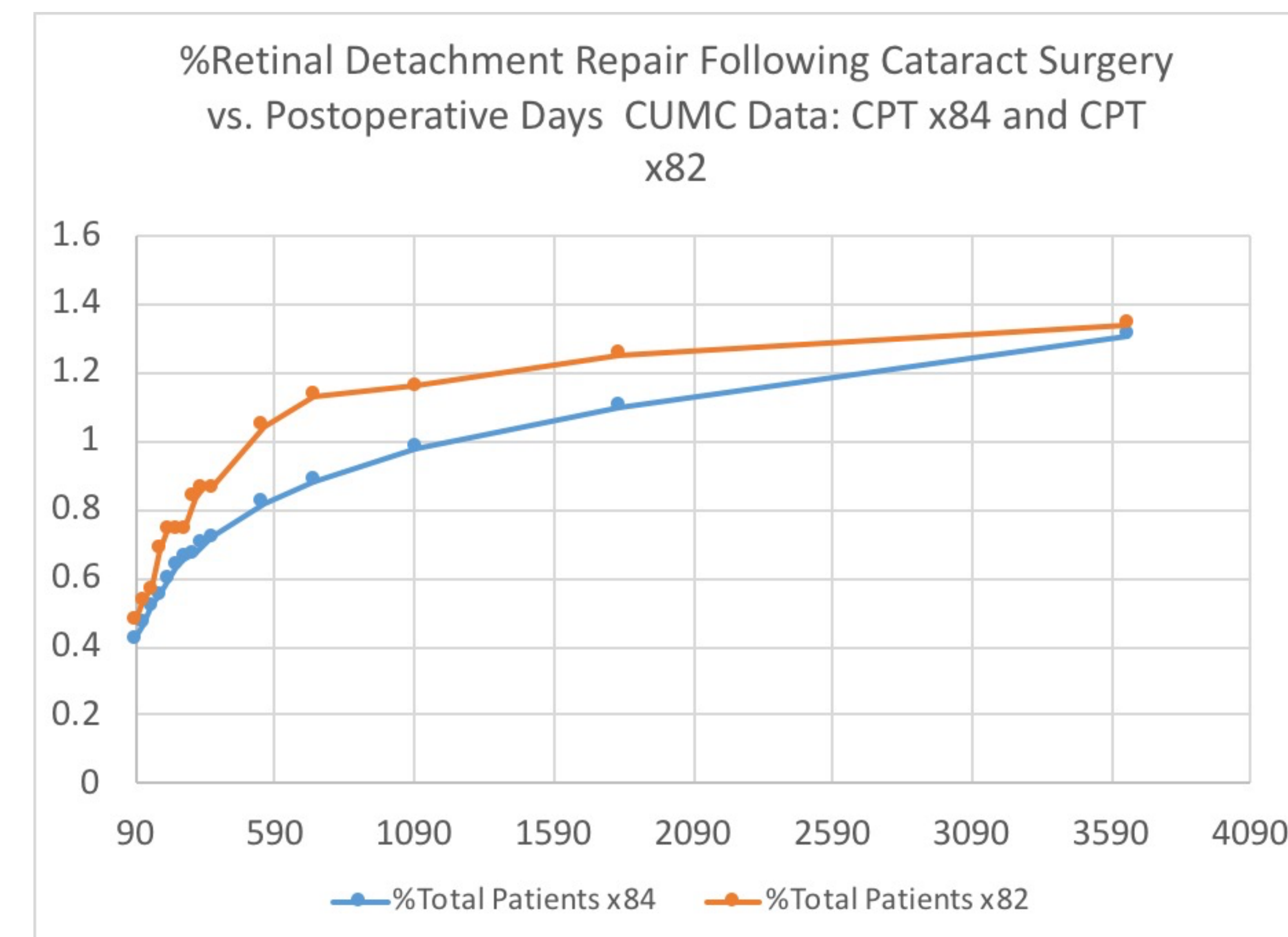


Figure 1: 10-year cumulative incidences of retinal detachment repair following cataract surgery.

Conclusions

Half of retinal detachment repairs occur within 1 year following cataract surgery. These findings have implications for retinal detachment screening. The high incidence of postoperative retinal detachment for patients with a history of retinal detachment warrants further investigation.