

# Collaborative Ocular Melanoma Study (COMS)



## Objective

To evaluate mortality outcomes of different treatment options for uveal melanoma.

## Methods

**Design:** multicenter, long-term, studies, 1 observational + 2 RCT

**Treatment Groups:**

- Small tumors (N = 188)
  - Observational
- Medium tumors (N = 1317)
  - Enucleation (N = 660)
  - Brachytherapy (N = 657)
- Large tumors (N = 1003)
  - Enucleation alone (N = 506)
  - EBRT (20 Gy) followed by enucleation (N = 497)

**Outcome Measures:**

- Small = tumor growth
- Medium = 5y survival
- Large = 5y & 10y survival

## Results

**Small:** small melanomas can be observed safely

- Small = apical height of 1-3mm and basal diameter of 5-16mm
- Primary outcome = tumor growth (i.e., to a medium or large size); 11% grew by 1 year, 21% by 2 years, 31% by 5 years

**Medium:** plaque brachytherapy with i125 is a treatment option

- Medium = apical height of 2.5-10mm and basal diameter of < 16mm
- Primary outcome = 5-year survival; 81% for enucleation vs. 82% for brachytherapy (p=0.48)

**Large:** pre-enucleation radiation (EBRT) is not effective

- Large = 2mm apical height and >16mm basal diameter OR height > 10mm regardless of diameter OR height > 8mm regardless of diameter if < 2mm from optic disc
- Primary outcome = survival rates; 5-year survival was 57% in enucleation alone vs. 62% with pre-enucleation radiation & 10-year survival was 40% in enucleation alone vs. 45% in pre-enucleation radiation

**Small melanomas can be observed.**

**Medium melanomas can receive brachytherapy or enucleation.**

**Pre-enucleation radiotherapy is not effective for large melanomas.**