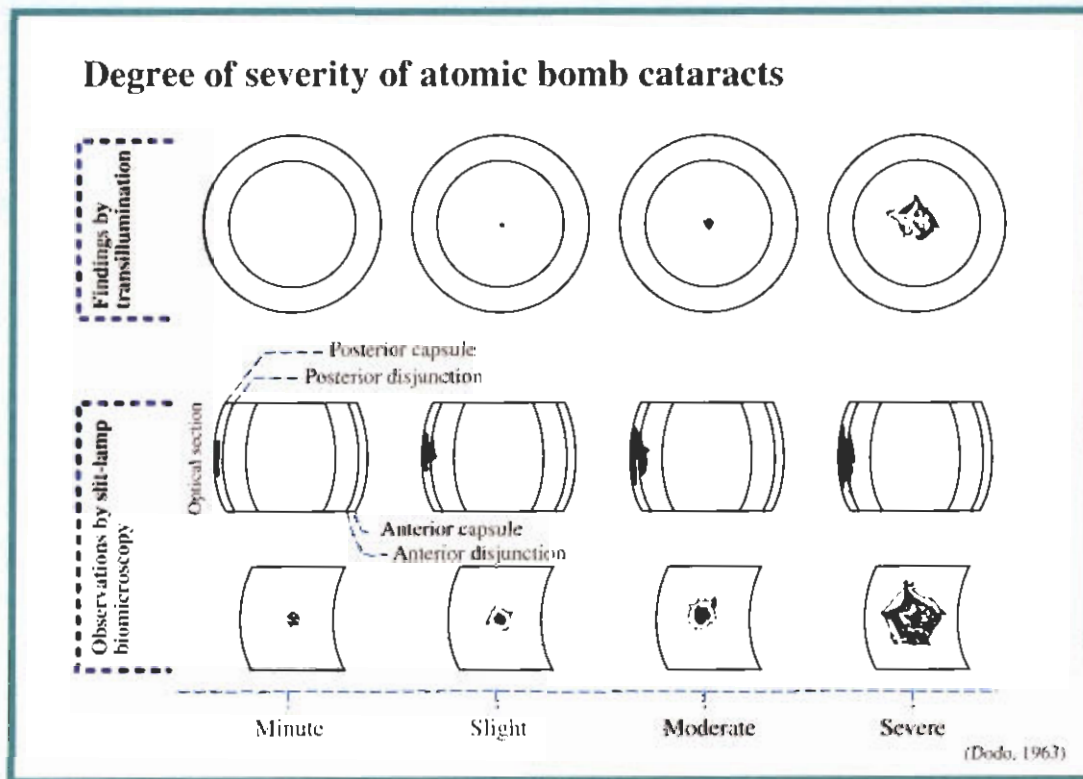


4

Ocular lesions



Cataracts

Atomic bomb cataracts are clinically similar to other radiation-caused cataracts, i.e. the opacity initially develops at the subcapsular portion of the posterior pole of the lens, punctuate or discoidal opacity forms, and part expands into a doughnut-shaped configuration. An opacity with a bivalve configuration sometimes forms. Slit-lamp biomicroscopy may reveal the surface of the opacity to be granular with a polychromatic sheen.

Atomic bomb cataracts are divided into four degrees of severity, from "minute" to "severe". Visual disturbances only occur when cataracts are severe. Care must be exercised with diagnoses since similar observations are

also evident with age-related cataracts. The frequency of atomic bomb cataracts and severity of opacity are radiation dose-dependent; symptoms developed from several months to several years after exposure, with severe cases occurring soon but mild cases not appearing until after a latency period.

The frequency of cataracts increases with proximity to the hypocenter, with the maximum exposure distance at which atomic bomb cataracts are formed believed to be 1.6 to 1.8 km. Statistical analyses based on radiation dose assume a threshold value of 0.6 - 1.5 Gy.

Prognoses vary; in many cases, progression of the opacity may cease, although in others it may progress further or even decrease.