The history of the meaning of the word Glaucoma

This article was prepared by Dr Nick Mantzioros, Ophthalmologist, Caulfield, Melbourne

The discovery of the disease called glaucoma dates back to the 17th century. Its important role as a cause of blindness has been known since the 19th century. Initial comprehension of its pathogenesis and treatment belong to the 20th century. Its prevention will hopefully be the work of the 21st century.

In the Hippocratic Aphorisms the term glaucoma (γλαύκωμα) was used to describe blindness coming on in advancing years associated with a glazed appearance of the pupil.

The word has usually been interpreted as implying a greenish or bluish hue, but it is more probable that to the Greeks it indicated no specific colour but the dull sheen or "glaze" of blindness. The word glaucoma came from ancient Greek, meaning clouded or blue-green hue, most likely describing a person with a swollen cornea or who was rapidly developing a cataract, both of which may be caused by chronic (long-term) elevated pressure inside the eye. The Hippocratic writings make no clear distinction between cataract and glaucoma. Both Classical and Alexandrian Greeks did not recognize the specific disease which we now call glaucoma.

In etymological lexicons, one finds entries such as: **glaucoma** - 1643, from Gk. glaukoma "cataract, opacity of the lens" (cataracts and glaucoma not distinguished until c.1705), from glaukos, an adjective of uncertain origin, used in Homer of the sea as "gleaming, silvery" (apparently without a colour connotation); used later with a sense of "bluish-green, grey," of olive leaves and eyes. Homer's glauk-opis Athene could be a "bright-eyed" or a "grey-eyed" goddess. Gk. for "owl" was glauk- from its bright, staring eyes.

The definition of glaucoma has changed drastically since its introduction around the time of Hippocrates in approximately 400 BC. The first recognition of a disease associated with a rise in intraocular pressure and thus corresponding to what is now known as glaucoma occurs in the Arabian writings, "Book of Hippocratic treatment", of At-Tabari (10th century). In European writings, it is Dr Richard Bannister (1622), an English oculist and author of the first book of ophthalmology in English, who makes the first original and clear recognition of a disease with a tetrad (four) of features: eye tension, long duration of the disease, the absence of perception of light and the presence of a fixed pupil. All through the 18th century the term glaucoma was merely a label applied to an inflamed eye wherein the pupil appeared greenish-blue and the visual prognosis was bad, but the tension of the eye was not stressed.

It was not until the beginning of the 19th century that the first excellent description of glaucoma with raised ocular tension is given by the French Dr Antoine-Pierre Demours (1818). Thereafter the central concept of a rise in the intraocular pressure became fully established. In London, Dr G.J. Guthrie (1823) recognized hardness of the eye as characteristic of a disease which he called GLAUCOMA. Finally, the essential feature of raised eye tension was fully established by the great Dr William McKenzie, Scottish clinician (1835) who, in the second edition of his classical and widely read textbook, ascribed the raised tension in both chronic and acute glaucoma. The final clinical observation in this epoch was the unifying concept of Dr Donders (1862) where he described an incapacitating increased eye tension occurring without any inflammatory symptoms as Simple Glaucoma. The concept of glaucoma has been further refined, particularly over the last 100 years. Dr Drance (1973) provided for the first time the definition of glaucoma as a disease of the optic nerve (an optic neuropathy) caused by numerous factors, called risk factors.

Currently, glaucoma refers to a group of eye conditions which cause characteristic damage to the optic nerve, the "cable" that transmits the visual message from the eye to the brain, and characteristic damage to the visual field. This damage is progressive, leads to loss of vision if untreated and often is caused by "higher pressure inside the eye" than the optic nerve can tolerate.