

History of Uveitis

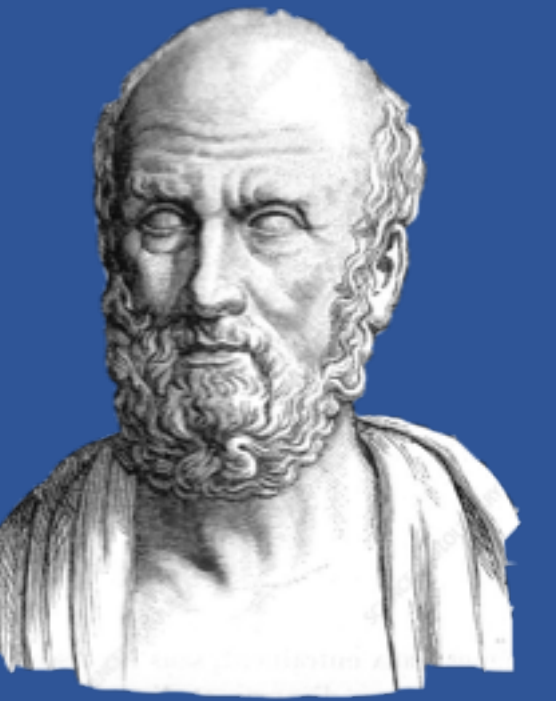
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1800s
400s BC to AD
1806

Inflammation of the eye, first described by the likes of Galen, Aetius and the father of medicine, Hippocrates.

The first case of uveitis was published by Professor Antonio Scarpa. He described the inflammatory changes within the iris and aqueous humor, as well as his attempts at treatment.

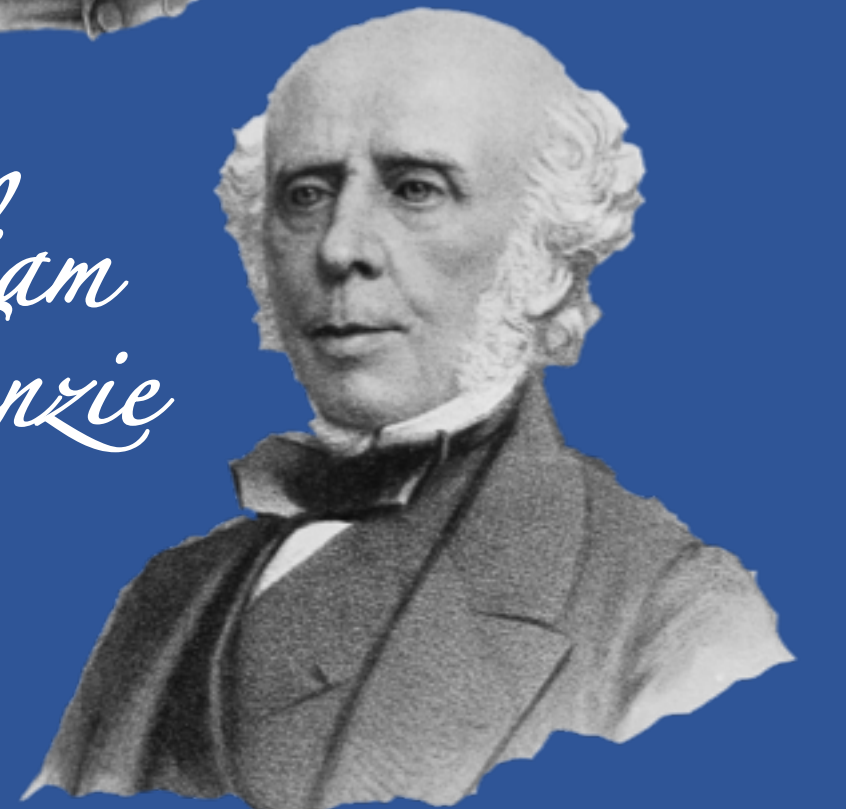
Antonio Scarpa



Hippocrates



William Mackenzie



1830

Scottish physician Dr William Mackenzie, went on to describe uveitis in the English literature, and penned one of the first British ophthalmology textbooks. He also spoke of presumed causes, and noted both acute and long term sequelae.

Many of his speculations were correct, including associations such as syphilis, gonorrhea, arthritis and tuberculosis. Others were incorrect, including transition from heat to cold, and overuse of the eyes.

Dr Mackenzie was also the first to dilate the eye, using the toxic plant belladonna. Formally known as *Atropa belladonna*, this plant contains the active ingredient atropine, which is commonly used today.

Belladonna



In the early 1800s, some topical treatments included:

- Application of small gauze bags, filled with emollient herbs and boiled in milk.
- Washing of the eye with herbal concoctions, including ingredients such as antimonium tartaricum, a potassium based emetic, and triticum repens, a grass plant.
- Use of corrosive eye washes and salves, such as 'vitriolic collyrium' ie. sulphuric acid, turpentine or hydrocyanic acid (a form of cyanide applied in vapor form)
- Other herbal remedies include quince seed, tepid mallows and grains of camphire.

Camphire 'henna'



More invasive treatments included blistering, bleeding or purging.

- Blisters were made on the neck or near the affected eye using corrosive agents that induced pustular eruptions.
- This was thought to incite a nearby immune reaction to heal the eye.

If syphilis was the suspected underlying cause, this was treated with mercury.

Triticum repens



Early
1900s



Uveitis management focused on finding and treating the infectious cause. For example, dental extraction and tonsillectomy for streptococcal control.

Other treatments included:

- Heat therapy "hot spoon bathings" – aimed at raising the temperature of the anterior chamber. A cloth overlying a wooden spoon was soaked in boiling water and held over the eye, similar to warm compresses used today. Healing pastes of herbs or plants could be used. In later years, these were replaced with electric pads applied to the face.
- Fever therapy – aimed at raising the temperature of the entire body. Techniques included promoting hyperthermia in heat cabinets, or injecting substances to induce fever, such as intramuscular injections of boiled milk (also known as protein shock therapy). This was thought to trigger endogenous steroids and stimulate the immune system.
- Leeches or 'hirudotherapy' – where leeches were applied to the lids or brows to improve blood supply and nourish tissues. Leeches are a medical therapy still sparingly used for various inflammatory conditions.
- Irrigation – performed by nurses through undines, small glass flasks or douches, trickling liquid into the eye. Saline purges using disposable plastic devices are used in ophthalmology today, however rarely for uveitis.

Leeches



Undine



1930s-1940s

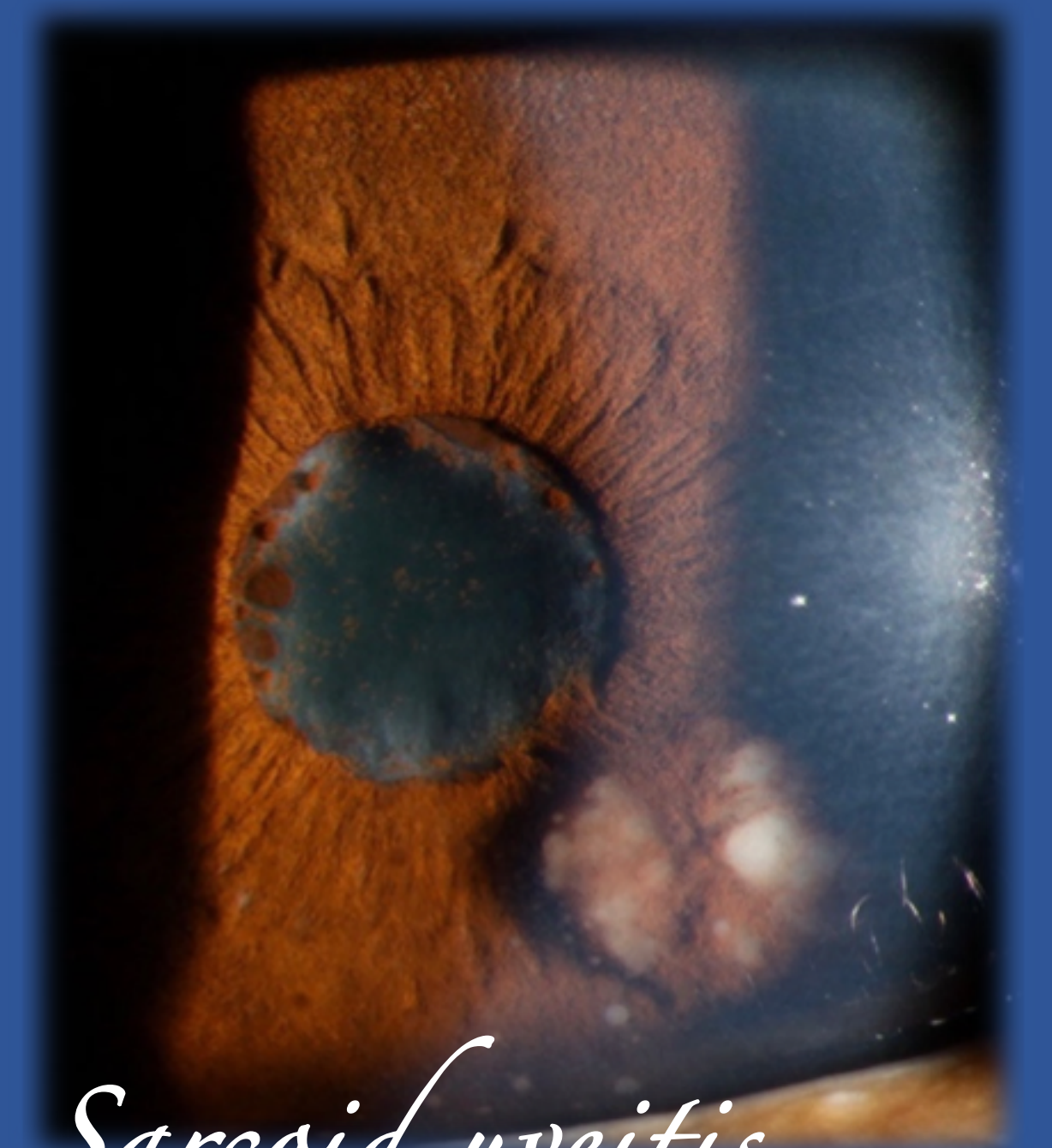
Mid 1900s

The discovery and synthesis of steroids as medication marked the most significant milestone in the treatment of uveitis. Steroids were known to play an endogenous role prior to this time, however were first able to be isolated from the adrenal cortex in the 1930s. Over a decade later, they were utilised in their synthetic form.

1950s

Dr Dan Gordon and Dr John McLean document the first use of steroids in ophthalmology, reporting strikingly positive results with improvement in symptoms and clinical examination of patients with several different inflammatory eye conditions.

Over subsequent decades, corticosteroid formulations were refined in their use, including delivery site, preparation and dosage, to optimise efficacy and minimise side effects.



Sarcoid uveitis

Present day

Corticosteroids remain the cornerstone of uveitis treatment. Cycloplegics are also used to mobilise ciliary and pupillary muscles. Examples include tropicamide, cyclopentolate, and atropine.

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