

The History of Retinal Detachment Surgery

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The history of retinal detachment surgery is one of the great success stories in the history of medicine. The first descriptions of retinal detachment were by Ware in 1805, Wardrop in 1818, and Panizza in 1826 [1–3]. These descriptions relied mainly on pathological observations. The introduction of the ophthalmoscope by

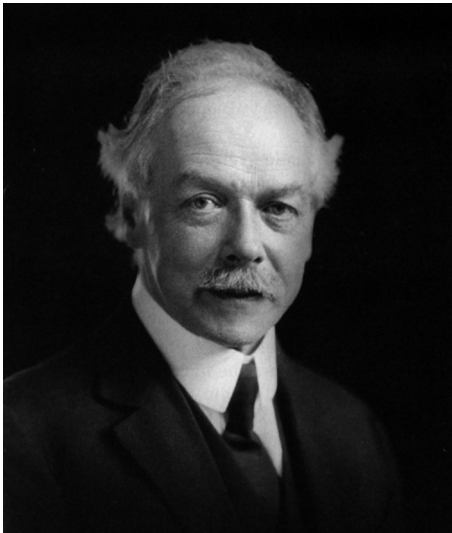


Fig. 1.1. Jules Gonin. (Reproduced with permission; Wilkinson CP, Rice TA (1997) Michels retinal detachment, 2nd edn. Mosby St. Louis MO. pp 241–333 [10])

Helmholz in 1850 made an accurate and reliable clinical diagnosis possible [4]. Coccius in 1853 followed by von Graefe in 1854, who also portrayed the course of retinal detachment, observed the first retinal tear [5, 6]. The history of retinal detachment surgery can be divided into pre- (before 1920) and post-Jules Gonin's era (after 1930).

In 1920, Gonin reported the first successful treatment of retinal detachment by sealing the retinal break to the underlying retinal pigment epithelium (RPE) and the choroid (Fig. 1.1) [7, 8]. During and after the time of Gonin's contributions, many surgeons contributed to the advancement and success of retinal surgery. Prior to this time, however, there was little or no successful treatment for retinal detachment but a large number of treatments were proposed and are mentioned here for historical interest. Some of this work has been adapted from the great historical collection of Duke Elder's *System of Ophthalmology* and from Michels' *Retinal Detachment* [9, 10].

Pre-Gonin Era

Medical Treatment of Retinal Detachment

Stellwag in 1861 and Donders in 1866 proposed rest as essential for treatment of retinal detachment [11, 12]. By rest, it was meant the immobility of the body and the eyes, with the latter being the more important component; both eyes were bandaged, atropine was applied for intraocular immobility, and complete immobility of the body was achieved by laying on the back with the head sandwiched between sandbags. Samelsohn in 1875 suggested compression bandaging combined with rest for many weeks [13]. Mendoza in 1920 recommended a plaster mould that would fit the eye and the orbital ridges and therefore apply even pressure to the eye [14]. Further, Marx in 1922 advised a salt-free diet to promote the absorption of subretinal fluid [15].