

30th Convention of the JULIUS-HIRSCHBERG-SOCIETY

Scientific Session, 2016, 08th October

Summaries

Silver Blaze

Frank J. Goes, Brasschaat (Belgium)

We all know that Sir Arthur Conan Doyle was trained as an ophthalmologist but that he became famous through his crime stories. How was his ophthalmological training helpful in resolving, through the help of his alter ego, Dr. Watson, the mysterious death of SILVER BLAZE. Together we will unravel the mystery.

30 Year History of JULIUS-HIRSCHBERG-SOCIETY

Jutta Herde, Halle/Saale (Germany)

The Society for the History of ophthalmology named Julius- Hirschberg-Society looks back on its 30-year history as the Society (JHG) was founded on 09/21/1986 at the 84th meeting on the DOG in Aachen we chose this city as the 30th meeting of JHG 2016th. The following protagonist and founding members have to be thanked: Dr. W. Münchow, Prof. H. Slezak, Prof. H. Remky, Prof. H.-M. Koelbing, Prof. R. Sachsenweger. The concern of the foundation members was to establish a German society which would not be hindered by the political situation at the time and the division of Germany. The choice of Vienna to be seat of the society was based not only on the political situation, but also on the great importance of Vienna for the ophthalmology. In June 1987 in Gmunden/Austria during the Conference of the Austrian Ophthalmological Society had the first meeting. They approved the Statue and elected the Board and decided Vienna for the first annual general meeting for the reason of the 175th foundation of the 1th university eye clinic. The annual meetings from the time of founding till today took place, place as follows: Austria – Gmunden 1987, Vienna 1987,1993, 2011, Innsbruck 1998, 20004, Salzburg 2008; Switzerland – St. Gallen 1989, Ittingen 1995, Bern 2000, Heiden 2009, Zürich 2012; Holland – Leiden 1997, Amsterdam 2013; Belgium – Brussels 1992; Luxembourg 2003; France – Strassbourg 2006; Germany – Beginning in Aachen 1986, Ingolstadt 1988, Munich 1990, Dresden 1991, Potsdam 1994, Mannheim 1996, Berlin 1999, Hamburg 2001, Weimar 2002, Würzburg 2005, Halle (Saale) 2007, Cologne 2010, Bonn 2014, Heidelberg 2015, Aachen 2016. Several meetings were held together with the DOG, the SFHO, SOG and the DGGMNT. In addition to the annual meetings the following symposia are worth mentioning: 1994 in Halle - 300 years University Halle, from eyes to modern service; 1999 by v. Graefe and Graefe Family reunion in Halle with symposium on the occasion of 100th anniversary of the death of Alfred Graefe; 1995 and 1996 in Berlin: Albrecht von Graefe symposium on the occasion of the 125th death year; Science Historians. Since 2000 annual symposia have been held during the DOG. The journalistic activities of the JHG contain the Bulletin "Documenta Nuntia Annotationes" 2 times per year, the publication of the lectures from the annual meetings in Information booklet of JULIUS-HIRSCHBERG-GESELLSCHAFT since 2000, vol. 1–14, edited by Mr. Krogmann, meetings information from several meetings, abstracts on the Homepage and meetings informations at the ON and Augenspiegel.

Until now 672 lectures have been held. The Promotions Prize for history of medicine was awarded for the first time in 2014. In 2012 in Zürich Dr. G. Kuntzsch-Kullin proposed a development of a keyword register of all previous JHG-lectures and publications. It was completed in 2015. A Hirschberg lecture was introduced in 2014. The society has the following Honorary Members: Prof. F. Blodi (1917–1996) 1990, A. Schett (1917–2005) and Prof. H. Remky (1921–2010) 1997, Prof. R. Crone (1918–2012) and Prof. H.-M. Koelbing (1923–2007) 2000, Prof. G. Holland, Dr. R. Heitz and Prof. F. Daxecker 2008, Prof. P. Speiser 2011, Prof. B. Gloor 2012, Prof. J. Herde and F. Krogmann 2013. During the 30 years 20 Chairmen managed the Society together with the Board members, 3 secretaries, 2 cashiers, 1 manager and numerous auditors guarantee the correspondence and the finances. The annual meetings are enriched by cultural and historical programs.

The history of the Oculopression

Manfred Jähne, Chemnitz (Germany)

The expulsive haemorrhagia was in the intracapsular cataract extraction with incision by GRAEFE the most important complication until nearly 1990, followed by the prolapsus of corpus vitreum. The praeoperative hypotonia of the eye bulb has to prevent the prolapsus of corpus vitreum. The corpus prolapsus in cases with local anaesthesia fluctuated in papers even more than 10%. Late complications on the cornea, like secondary glaucoma and ablatio retinae were significantly higher.

Simple compression praeoperatively was introduced by PAGENSTECHE (1878) in Wiesbaden and by MAKLAKOFF (1893) in Russia first.

Regularly they were simple methods: like digital compression (ATKINSON 1934), a pipe of glass with globes (ARRUGA 1959) and the reduction of the eye pressure with a rubber band (KETTESY 1963). First the hungarian ophthalmologist VÖRÖSMARTHY (1964, 1967) achieved the change with his own eye pressure reducer (Made by firma DEUTSCHMANN, Zittau). The praeoperative ocular- orbital compression with pneumatic taxable cuff can shift back the iris-corpora vitreum-diaphragma positiv by pressing out the anterior chamber water in a time of 10 minutes. Therefore VÖRÖSMARTHY reduced the prolapsus of corpus vitreum to nil percent in his cataract operations. Other surgeons are situated with this method about 0.5% corpus prolapsus very good, too (PFANDL 1973, JÄHNE 1980).

The compression with a Honan-pressure polster, partially used worldwide, or with a suction bottle reduced the blood supply or blood stream of the chorioid. During an employment with the CHRISTOFFEL-Blind-Mission in Tanzania/ Africa we observed an eye pressure reducer from India in 1987. The metallic oculopressor is a model of a tightropewalker with a balancing-pole and two weights, altogether 412 grams, its contact surface is 2.26 cm². This gives on the eye a pressure of 1.79 Newton/ cm². The intraocular pressure was reduced by 7,7 mmHg very significantly during a 5-minute oculopression. Compared the contact surface of the VÖRÖSMARTHY oculopressor is threefold bigger and has a pressure of 0.93 Newton/cm². The corpus prolapsus was slightly higher with the Indian oculopressor. The praeoperative eye pressure reduction by VÖRÖSMARTHY was in comparison with 12.6 mm Hg in a 10-minute oculopression significantly better (JÄHNE 1991).

The praeoperative eye pressure reduction in cataract operations in topical anaesthesia with a small incision technique, phacoemulsification and the implantation of a flexible intraocular lens is not necessary today anymore.

The Metamorphosis of tears: From amber to emerald

Gerhard Keerl, Düsseldorf (Germany)

The myth of Ovid's metamorphosis of the Heliads tears into amber is rather good known. Less is known from myths of other parts of the world. A report will be given.

Ethnology in the estate of the ophthalmologist Alfred Leber (1881–1954)

Guido Kluxen, Wermelskirchen (Germany)

Alfred Leber was an avid collector of ethnographic things of all kinds. However, he still has not succeeded in 40 years of tropical stay, to create a continuous collection, because many things got lost through expropriation and destruction. In Germany, camped in the basement of his older brother Georg in Heidelberg, there were Wayang figures, masks, mats, lamps, tools and jewelry, which he had brought with him in 1911 and 1922. Occasionally, he sent the brother even packed boxes. After his death in New Delhi /India, the younger zoologist Klaus Sander also sent something to this brother. None of the collectibles, the photos as well, deserves the name colonial piece of loot. Some of the ethnological findings in which Leber was involved, are taken from the research of the second South Seas Expedition 1913/14.

Views in to the ophthalmic work of Ibn Sina and Albukassim

Frank Krogmann, Thüngersheim (Germany)

In the lecture, the ophthalmic business of Arab Doctors Ibn Sina and Albukassim is presented. These two doctors are among the luminaries of the "Old Arab medicine".

"White Gold"- perfect for optical preciousness's

Gisela Kuntzsch-Kullin, Braunschweig (Germany)

Since years the author enjoyed at and is collecting porcelain art. Visiting porcelain manufactories, castles und museums including the study of corresponding literature the pleasure in the so called "White Gold" did rise.

Preponderant was the interest particularly turned to historical table- vessels, what means dish- coffee-tea-chocolate and vessels of extraordinary manufactories, the author turned towards the figurative porcelain of the 18.century.

Thereby she found out figures with optical instruments designed by Johann Joachim Kaendler, the best known porcelain model maker of the Meissen manufactory.

Stimulated by this fact she looked for optical preciousness's of the European porcelain manufactories and she was successful.

It looks very remarkable, that most of those items were and are part of private collections.

The report shows in a picture performance the result of this "voyage of discovery". The European porcelain art is inseparably connected with the name "Meissen", because here came into being the first porcelain works of art since 1729 to 1731, marked with the legend of the two crossed swords.

Other figures with optical topics came from manufactories from Berlin, Höchst, Vienna, Ludwigsburg, Wallendorf, Selb and Madrid.

125 years Ophthalmology in Stuttgart – Charlottenklinik's 125th anniversary

Gangolf Sauder, Stuttgart (Germany)

Comparatively to other medical disciplines, ophthalmic science has developed late and ophthalmic hospitals and doctor's surgeries were rare in the late nineteenth century. In Stuttgart, Rudolf Berlin was the first doctor who founded the first ophthalmic hospital. Berlin was trained by Albrecht von Graefe and when he came to Stuttgart after his medical education in Wiesbaden and Tübingen, he was a surgeon and researcher alike. But his private practice was closed after the first worldwar. On the first of July in 1878, Oskar Königshofer founded his ophthalmic private practice in Stuttgart and five years later, the first ophthalmic department of the Katharinenhospital, which has its origin in the private hospital of Nathan E. Krailsheimer of 1880, arose. Today's Charlottenklinik had its roots in the efforts of Oskar Königshofer and it is now one of the great ophthalmic providers in Stuttgart. In 2016 it celebrates its 125th anniversary. Königshofer was a charitable person and treated also destitute people in his private practice. But their number increased because of the strong growing population and the ophthalmic hospitals and surgeries were closing a serious gap in supplies now. For having more capacities to treat penniless people, Königshofer founded in 1883 the society "Dr. Königshöfer'sche Vereinsaugenheilstätte für weniger Bemittelte und Arme". His society covers the costs of treating destitute patients via donations and the financial support of wealthy entrepreneurs, like the industrialist Gustav Siegle and the banker Eduard Pfeiffer, made it successful. The surgeons which treated eye disease within the framework of their treatment spectrum didn't want to accept ophthalmic science as an independent medical discipline and built a resistance against this process. But in medical experts, it gradually established the conviction that ophthalmology has to become an own discipline to ensure an extensive provision of medical care in this strong growing population.

Six years after Königshofer founded his society, Queen Charlotte of Württemberg assumed patronage of it and appointed it 1891 to a charitable foundation. This year is the official date of foundation of the Charlottenklinik. Because of Queen Charlotte's patronage, Königshofer renamed his society in 1892 in "Charlottenheilstätte für Augenranke." A few figures show the successful development of the Charlottenklinik: In 1911 the hospital recorded 524 patients which were treated from 5 deaconesses on 11467 days in 60 beds. Today's Charlottenklinik employs 121 employees and make 12750 medical interventions, 10370 of them are ambulant. The 60 beds decreased to 40 beds. The treatment is focused on cataract, retinal, vitreous and glaucoma surgery. Furthermore it is the only reference hospital for cataract surgery via nanolaser worldwide. The Charlottenklinik is still an independent institution and in this year, it expands itself with a second establishment. In this way the Charlottenklinik assures a sustained extensive treatment of a still growing population and it is still the greatest not municipal ophthalmic hospital of Baden-Württemberg and the eldest not university related ophthalmic hospital in Germany.

Paul Bailliar (1877-1969), inventor of the Ophthalmodynamometry, Pioneer of the research on ocular vascular disturbances

Dieter Schmidt, Freiburg (Germany)

In 1877, Paul Bailliar was born in Piotiers. He grew up in Besançon where he went to school. Er studied medicine in Lyon and Paris. The important French ophthalmologist Victor Morax was his teacher. In 1917 he published the method of measurement of the pressure in the central artery of the retina, called "Ophtalmodynamometry" («La pression artérielle dans les branches de l'artère centrale de la rétine; Nouvelle Technique pour la déterminer»). In the year 1923 Bailliar published his comprehensive, important monograph «La circulation rétinienne à l'état normal et pathologique». In the year 1929, he became Ophthalmologist at the hospital «Quinze-Vingts». Later he became ophthalmologist at the «Institut National des Jeunes Aveugles» and was elected as «Président de l'Association Internationale de la Prophylaxie de la cécité». His pioneering publications in ophthalmology led to further research by scientists in several countries.

An atypical contemporary: Walter Jahnke (1899–1984)

Stephan Töpel, Neubrandenburg (Germany)

In the wake of the collapse in 1945 some universities fell away for the new, reconstructive Germany (and with them the chairs of ophthalmology). This applies to both before and during the war incorporated areas as well as parts of the *Altreich* (*Old Rich*, Germany in the borders of 1937). At the same time it came to chairs remaining in Germany to numerous politically motivated vacancies: Who had placed the Nazis available, had to go, we think of Arnold Passow, Würzburg, at Fritz Poos, Dusseldorf, or at Wolfgang Riehm, Bonn. What for the dismissed worker was a tough break in his career, represented for some other colleague an unexpected opportunity. Such a change, which also has some unusual features, plays a role in the following.

It's about the Greifswald chair, the until May 1946 Karl Velhagen had, but since November 1945 only as a tolerated deputy, as a man on call. In spring 1946, the successor was ready. Unusual is now, that the chosen man was clueless regarding the responsibility, that came up to him: He was neither a professor of ophthalmology, nor he was habilitated, and he had never directed a clinic. The talk is of the practical ophthalmologist Walter Jahnke, who until 1945 worked in Szczecin and, bombed out there, was gone to Stralsund. For him only said, that he was politically unencumbered and was available. With this statement should Jahnke's merits as a practical ophthalmologist are not diminished. But the fact is, that Jahnke the chance, that had fallen to him, not so used, as the responsible men in Berlin, Schwerin and Greifswald expected from him. Only indirectly responsible was the Rostock professor Wilhelm Comberg: He had Jahnke recommended for the Greifswald chair.

Oculists on international coins

Gottfried Vesper, Leipzig (Germany)

Oculists are rare on coins.

In Poland the oculist Ludwik Zamenhof (1851–1917) is represented on the 100 Zloty coin from 1979.

On a Malta coin we discover Sir Luigi Preziosi (1888–1965).

In Ukraine we know Vladimir Petrovich Filatow (1875–1956) on a 2 Grivni coin from 2005.

In Philippines is a one-Peso-coin with the oculist-portrait of Jose Rizal (1861–1896).

In special interest for me is Sir Luigi Preziosi on the 2 pound silvercoin of Malta from 1977.

Malta itself is of most political importance. On the first of November in 1989 there was the decisive worldpolitical conference between the United States of America and the Soviet Union which ended the Iron Curtain.

25 years later – at anniversary in 2015 we have the 10 Euro silvercoin.

Poster-Exhibition

If you hear my “Voy” – take care! On the history of football for the blind.

Sibylle Scholtz, Heidelberg (Germany), Tobias Wrzesinski, Hennef (Germany), David Stirton, Bonn (Germany), Ulrich Pfisterer, Bonn (Germany), Frank Krogmann, Heidelberg (Germany), Gerd U. Auffarth, Heidelberg (Germany)

Purpose

Football for the blind is quite a new sport: Brazil and Spain were the most prominent pioneer countries in football for blind and partially sighted people. In these two countries the game was already popular in the playgrounds of schools for the blind in the first half of the 20th century. The first blind football tournament took place in Brazil some fifty years later in 1974. Today football for the blind is a sport discipline played in over 60 countries worldwide. This poster will give a brief overview of the basics of this sport and its history.

Results

Having its origin in Brazil, blind football was an established sport already in South America, England, Spain and other countries in the 1960s. IBSA took the sport on board in 1995, the first official international championships took place in Paraguay and Spain in 1997. The first World Championships were held in Brazil in 1998. Blind football gained popularity very quickly after these events, the sport made its Paralympic debut in 2004.

The ball contains a sound system that enable the blind football player to hear/localize the ball. A pivotal function is assigned to the Spanish word “Voy” which means “I’m coming”. Any player who approaches a player with the ball under control has to shout this word audibly.

Conclusions

Football for the blind is an extraordinary and spectacular sport discipline with ongoing increasing interest. Leagues have existed in countries like Spain for more than 20 years - in Brazil thousands of spectators watch matches - and these special football games are becoming more and more established also in other countries too, e.g. in Germany.

“Mystery is in the eye of the beholder”. On the history of the “Haidinger’s Brushes”

Sibylle Scholtz, Heidelberg (Germany), Bernd Lingelbach, Aalen (Germany), Frank Krogmann, Heidelberg (Germany), Gerd U. Auffarth, Heidelberg (Germany)

Purpose

The entoptic phenomenon of “Haidinger’s Brushes” was first described by Wilhelm von Haidinger in 1844. The ability of the human eye to see polarized light has not been known so far. This poster will give a brief survey of “Haidinger’s Brushes” and its discoverer.

Results

The phenomenon of “Haidinger’s Brushes” still is not completely understood. So far, it is regarded as a result of the combination of the radial orientation of the nerve fibers coming from the Fovea centralis and the pigments (Xanthophyll) found in the Macula. Both together seem to act as a radial symmetric polarization filter.

Conclusions

In 1844, Wilhelm von Haidinger showed that polarized light could be seen directly by the human eye when assessing the entoptic picture of “Haidinger’s Brushes”. Today this phenomenon is used in ophthalmology as a test for fixation and as pleoptic training of foveolar perception.

The evolution of capsulotomy – and a long forgotten idea

Kristian Gerstmeyer, Minden (Germany), Sibylle Scholtz, Heidelberg (Germany), Frank Krogmann, Heidelberg (Germany), Gerd U. Auffarth, Heidelberg (Germany)

Purpose

The history of anterior capsulotomy which was carried out from Jaques Daviel’s extracapsular cataract extraction (ECCE) and Percival Pott’s ideas of the dissolution of the lens is about 270 years old. The evolution of capsulotomy started with an initial, quite unobvious opening of the capsular bag using lancets or forceps to a controlled, fine continuous curvilinear capsulorhexis (CCC), carried out today which is characterized by traction. Apart from techniques which were abandoned quite soon (e.g. Nd:YAG lasers, magnetron, diathermy) a paradigm shift was initiated as late as in this century by using plasma ablation for anterior capsulotomy (with or without femtosecond lasers). Our poster recalls the respective experiments applying focused sunlight therapeutically in 1835.

Results

The Austrian ophthalmologist Wilhelm Werneck (1787–1842), who almost passed into oblivion, made significant scientific findings like “bursting” of animal cataracts using phosphor- or sun light. The light was focused by highly refractive lenses or concave mirrors. In 1884 Münchow regarded this reference (Remky and Amalrie adopted it in 1990) as the first description of photocoagulation – 115 years before Meyer-Schwickerath. However, Werneck’s theories went beyond: He conceived a capsulotomy in cases of keratonyxis by applying focussed light carefully to the surface of the anterior capsular bag in patients blind from cataract.

Even if Werneck did not carry out such experiments himself, his idea was the first alternative to mechanic capsulotomy.

Conclusions

Werneck's idea of a non-mechanical opening of the capsular bag was far ahead of his time. Unfortunately, it could not be implemented in 1835. In addition, it was not possible to differentiate between coagulation and disruption as different effects of light on biological tissue phenomenologically. Maybe light induced anterior capsulotomy was not taken into account in earlier publications as ophthalmology might have clung to capsular rhexis too strongly as it just had been presented at that time.

How a dangerous ophthalmologist tried to unite the world – Ludwik Lejzer Zamenhof, author of the international language Esperanto

Sibylle K. Scholtz, Heidelberg (Germany), Frank Krogmann, Heidelberg (Germany), Prof. Dr. Gerd U. Auffarth, Heidelberg (Germany)

Purpose

Ludwik Lejzer Zamenhof (1859–1917) was ophthalmologist, philologist and the inventor of Esperanto, the best-known constructed language worldwide. This poster is to honour Zamenhof's contribution to a world-spanning humanistic philosophy.

Results

Zamenhof studied medicine in Moscow (Russia) and Warsaw (Poland), ophthalmology then in Warsaw and Vienna (Austria). Under poor conditions, he practiced at several places in the Czardom then, finally until his death in Warsaw. Zamenhof was Jew, Russian citizen and of Polish descent. He lived in Warsaw among different cultures, religions as well as languages and wanted to unite them. In 1887, Zamenhof presented his constructed language by which he wished to simplify the understanding among all nations and to unite all different cultures: Esperanto, which means "the hopeful one". Unfortunately, Esperanto did not prevail so far; nevertheless, millions of people around the world speak Esperanto today and still hope for its worldwide implementation.

Conclusions

Zamenhof regarded the missing of a common language as the reason for social conflicts. With his detailed idea of an equitable, neutral, joint and transnational language, he wanted to preserve regional cultures and languages as well as overcoming social conflicts. Zamenhof's philosophy was obviously far ahead of his time.