ENTUK

British Society for the History of ENT Annual Meeting 2017

Programme

Thursday the 30th November 2017

The Toynbee Mackenzie ENT Room, Royal Society of Medicine, London

12.00 -12.45	Registration & Lunch
12.45 – 12.50	Welcome by Mr Neil Weir, President BSHENT Mr Neil Weir, President BSHENT, Chair, Session 1
12.50 - 13.02	History of women in ENT **Sevasti Konstantinidou**
13.02 - 13.14	Surgeon, inventor, showman, pariah - the life and career of Eugène Doyen **Benjamin Miller**
13.14 -13.26	Grommets: A 19th Century Invention Successful in the Modern Era **Cillian Forde**
13.26 -13.38	Robert James Graves : The man who sold second hand time **Robert Grounds**
13.38-13.50	Punishment through the ages: The punitive role of the Ear, Nose and Throat **Victoria Twigg**
	Mr Richard Irving, Hon. Secretary BSHENT, Chair , Session 2
13.55 - 14.07	"An ailment I will handle" – the Edwin Smith papyrus **Rupert Phillips**
14.07 - 14.19	Prof N Isshiki and the History of Laryngeal Framework Surgery **Yakubu Karagama**
14.19 - 14.31	Robert Owen and the discovery of the parathyroid glands in a Great Indian Rhinoceros **Thomas Geyton**
14.31 - 14.43	BAHA Black Sheep **Jessica Chapman**
14.43 - 14.55	Isambard Kingdom Brunel's narrow escape **Hussein Walijee**
14.55 – 15.15	TEA/COFFEE
	Edward Fisher, Editor Journal of Laryngology and Otology (JLO)
15.15 - 15.27	Edison's Deafness. **Thomas Geyton**
15.27 - 15.39	Tonsillectomy through the 20th Century; comparing patient experiences **Neil Jones**
15.39 - 15.51	McIndoe's Guinea Pig Club – the good, the bad and the ugly **Anastasha Herman**
15.51 - 16.03	Laryngeal Tuberculosis: What the Victorians can Teach Us **Munira Ally**
16.03 - 16.15	Alexander Graham Bell, the Deaf Culture and Cochlear Implantation **Richard Ramsden**
16.25	AWARD OF THE BEST JUNIOR PRESENTATION PRIZE
16.30	AGM BSHENT
16.45	CLOSE

History of women in ENT

AUTHOR: Sevasti Konstantinidou

A literature review was conducted using Google Scholar and Pubmed to explore the history of women in ENT from ancient to modern times. The history of women as medical practitioners stretches back to 3,500 BC, but the documentation regarding ENT specialists is limited in ancient times. Antiochis from Greece (1st century AD) was accomplished in rhinology, particularly nasal haemorrhage. Cleopatra Metradora, a Greek surgeon of Egyptian origin (2nd or 7th century AD) performed face reconstruction operations. She was the first female medical author. In medieval times, the representation of women in otorhinolaryngology was limited, with only few exceptions. Frau von Tesingen from Germany (13th century AD) published a text with various medicinal treatments for auricular pathologies. Benvinguda Mallnovell from Spain used herbal preparations to treat diseases affecting the throat. In the 19th and 20th century, with the development of medical schools for women, the contribution of women in ENT was greatly advanced. In this era, the first female ENT specialists, inventors, heads of Otorhinolaryngology departments and members of ENT specialty societies appeared.

Some of the well-known otorhinolaryngologists and inventors of this period were Alice Bryant, Margaret Butler and Emily Lois Van Loon. In the last 50 years, the representation of female otorhinolaryngologists in clinical practise, authorship and leadership rapidly increased. In USA, the practicing women otolaryngologists increased from <1% in 1975 to 30% in 2016. In the UK, female doctors currently represent 28.9% of ENT consultants and 42.2% specialty registrars.

Surgeon, inventor, showman, pariah - the life and career of Eugène Doyen

AUTHOR: Benjamin Miller

Few surgeons generated such popular interest and controversy within their lifetime as Eugène Doyen (1859-1916), a remarkable figure who has fallen into relative obscurity, now commonly known in reference to the eponymous mouth gag which remains in use in oral surgery. Born in Reims, Doyen studied medicine in his hometown and later Paris, where he declined overtures from Louis Pasteur to work as his assistant. A flamboyant entrepreneur, he quickly established a lucrative clinic in Paris serving high profile clients. His extensive surgical innovations include the eponymous gag, among the earliest laryngeal and supraglottic airways, a modern operating table, and the use of electrocoagulation in cancer and thyroid surgery. Doyen had a sincere interest in the medical applications of photography and film, and published among the first photographic atlases of anatomy and filmed sixty operations.

Whilst a talented and innovative surgeon, Doyen was also by modern standards a quack and opportunist, courting numerous controversies throughout his career. He published lurid accounts of his procedures in the tabloid press, proposed controversial cancer treatments involving the implantation of cancerous tissue into healthy tissue, and developed and sold 'mycolysine', an elixir that he alleged could cure a wide range of ailments from the common cold to tuberculosis. In exploring the colourful life and career of Doyen, the authors shed light on an era in which genuine surgical innovation and radical pseudoscience were not infrequent bedfellows.

Grommets: A 19th Century Invention Successful in the Modern Era

AUTHOR: Cillian Forde

The first myringotomy was described in 1649 when a French anatomist, Jean Riolan the Younger, lacerated a tympanic membrane with a spoon while clearing wax from a patient's canal and was surprised when it resulted in an improvement in hearing. Following this, many physicians attempted to explain the relationship between the tympanic membrane, a myringotomy and hearing. Once discovered, many attempts were made at keeping the myringotomy open. As a result, three eras of myringotomy have been described in the literature. The major step of the first era were Astley Cooper's clear indications for a myringtomy, including the use of the anteroinferior quadrant. However, since it was a blind procedure with multiple misguided attempts and poor outcomes, it fell out of favour. The second era brought the recognition that the myringotomy needed to be maintained. Larger myringotomies, cautery and oiled catgut were tried before Politzer described the rubber grommet in 1868.

Prior to this, Frank, Lincke and Bonnafont had described larger rubber tubes and silver cannulae. Later modifications were trialled by Dalby and Voltolini. However, the high complication rates and temporary cure meant it fell out of favour again. Beverley Armstrong described the first modern grommet in 1954. In subsequent years, his grommets underwent many modifications from plastic to Teflon and the addition of a flange. Despite the improved designs, the third era owes its success to several other factors, namely antibiotics, good anaesthesia and the operating microscope. The concept of the grommet has not changed significantly since Politzer.

Robert James Graves : The man who sold second hand time

AUTHOR: Robert Grounds

Robert James Graves : The man who sold second hand time Robert James Graves, born in Dublin in 1796, is most well recognised for his contribution to understanding the disease that now takes his name. What is most remarkable about this doctor, teacher and academic however is that his talents were so diverse that his greatest achievements have nothing to do with thyroid pathology, instead ranging through language, art and even inventing. Having graduated in medicine in 1818, he travelled to London to study surgery under Sir William Blizzard, before embarking on a 3-year journey around Europe to further his knowledge. [1]A skilled linguist, whilst travelling on foot without a passport in Austria, he was at one point imprisoned, accused of being a German spy. It was claimed that no Irish man should be able to speak the language as well as he could. [2] In order to help him measure the pulse of those with thyroid disease the part time inventor devised the concept of the "second hand" on the watch – a completely new idea at the time.

Unfortunately, and somewhat ironically, he did not take the time to patent his device and instead lent the idea to a Dublin firm of watchmakers who made a fortune selling these watches all over the world. This remarkable man left a legacy not just for doctors but for people around the world every single day. Last year an estimated 1.2 billion wrist-watches were sold globally. [3] Next time you buy one don't forget to ask whether it has a Grave's hand on it.

References:
1) Taylor S. 1989 Robert Graves: the golden years of Irish Medicine. Royal Society of Medicine Services Ltd, London 1-160.
2) Coakley D 1996 Robert Graves, Evangelist of Clinical Medicine. The Irish Endocrine Society, Dublin 9-102.
3) http://www.statisticbrain.com/wrist-watch-industry-statistics/

Punishment through the ages: The punitive role of the Ear, Nose and Throat

AUTHOR: Victoria Twigg

Law enforcers have conjured many inventive ways of inflicting punishment on those citizens that do not abide by the laws of the land, each generation more imaginative than the last. Criminals have been the guinea pigs for many crude forms of ENT operations, provided not by surgeons, but law enforcers exclusively without consent and certainly not in the patient's best interests. The ancient Egyptians, Greeks and Romans encouraged rhinotomy as a punishment for adultery; permitting, in some cases, the husband of an adulterous woman the privilege of amputating his own wife's nasal pyramid. 'Cropping', or 'pinnectomy' as the more familiar term to the ENT surgeon, is too an ancient punishment which saw the height of its popularity in the seventeenth century. It will come as no surprise that punishments pertaining to the throat were largely reserved for the worst offenders who had committed unforgiveable crimes.

Well known methods such as execution by decapitation, hanging, slitting and throttling have played up to the weaknesses of human anatomy and the necessity to preserve the structures of the neck for life. The pharynx and oesophagus have also been a target for cruel and unusual punishments, not least by the Persians who enjoyed the torture of forced ingestion of molten gold. These tribulations may not have all been in vain; they certainly will have added to the body of knowledge of the structure and function of the Ear, Nose and Throat and, in some cases, gave cause for reconstructive surgeons to finetune their trade.

"An ailment I will handle" – the Edwin Smith papyrus

AUTHOR: Rupert Phillips

The Edwin Smith papyrus, named after the antiquities dealer who purchased it in 1862, is the oldest known surgical treatise[1]. Dating back approximately 5 millennia to ancient Egyptian times, it outlines 48 surgical cases, anatomically ordered from head down, with ENT featuring strongly. It describes each 'ailment', with subsequent sections on diagnosis, prognosis and treatment. Each treatment is categorized as being 'an ailment I can handle', 'an ailment I will fight with' or 'an ailment for which nothing is done'. Whilst other slightly more recent ancient Egyptian papyri also allow a glimpse into their medical practices, the Edwin Smith papyrus stands alone in its vivid rationality and reliance on physical examination to reach logical conclusions, with noticeable absence of magical, demoniacal or theological influences.

Whilst the case descriptions and interventions are unsurprisingly rudimentary, their accuracy is nonetheless astonishing given the almost non-existent understanding of human physiology and anatomy at the time. In relation to ENT, there are a number of cases pertaining to common presentations, such as nasal and facial fractures and lacerations, with the recommended interventions resonating to current practices. Furthermore, that these findings were lost with the demise of the Egyptian empire, reappearing briefly during the Hippocratic era two millennia later, then fading into anonymity again during the dark ages, highlights how ahead of their time these cases were.[1]

References:
Breasted JH. The Edwin Smith Surgical Papyrus.
Volume 1 of 2. Chicago: The University of Chicago Press; 1930.

Prof N Isshiki and the History of Laryngeal Framework Surgery

AUTHOR: Yakubu Karagama
Tudor Ionescu

Japanese Prof Isshiki is the pioneer of laryngeal framework surgery, the four types of existing thyroplasties bearing his name. Mr Yakubu Karagama, laryngologist consultant from Manchester Royal Infirmary interviewed Prof Isshiki during his fellowship at the Isshiki Memorial Clinic in Kyoto. Several topics have been challenged, like who is the man Isshiki that stands behind the famous name, how he converted his passion in physics into passion in laryngeal physics and who inspired him to develop the innovative techniques.

Mr Karagama also received answers regarding the first experiments in this type of surgery, the twenty days of intense research that resulted in the four phonosurgical methods and why type one thyroplasty is commoner in practice than the other three. Prof Isshiki gave arguments about always using local anaesthesia for laryngeal framework surgery and revealed how nature has inspired him in developing his techniques and modifying them so they would become more efficient. In the end, the renowned laryngologist, as a great master of the art of mending the impaired voice, gave some pieces of advice for young phonosurgeons, encouraging them to be cautious regarding the risks of such delicate surgery. He also proved that the age of 85 is a good age to still be active and committed to patients and to the scientific world and even for further research.

Robert Owen and the discovery of the parathyroid glands in a Great Indian Rhinoceros

AUTHOR: Thomas Geyton

On the 24th of May 1834 London Zoo acquired a male 'Great Indian Rhinoceros' (Rhinoceros unicornis) by the name of Clara. Richard Owen, the then Hunterian Professor and Conservator of the Museum in the Royal College of Surgeons, had convinced the zoo to pay 1000 guineas for the animal on the condition that he may dissect it when it passed away. Clara was kept with an African elephant, both of whom were fed on a diet of oats, carrots, bread and beer. Following a fight between the two Clara sustained a fractured rib, "injuring the adjacent lung and causing his demise". The Rhino was dissected in the front room of Owen's house over the course of 1849-1850. By the end of this time it was said to be in an "impressive state of decomposition". On the 2nd March 1852 Owen's finding were published in the zoological society's transactions. It is in this paper that Owen describes but does not name "a small compact yellow glandular body, attached to the thyroid at the point where the veins emerge".

This is the first mention of the parathyroid glands in anatomical science. Owen's memory is diminished by him being on the wrong side of the evolution debate with Charles Darwin. We sought to uncover how this disagreement was to overcome the best known scientist of the day and the history of the parathyroid glands.

BAHA Black Sheep

AUTHOR: Jessica Chapman

Bone anchored hearing aids (BAHAs) are a treatment option for patients with conductive hearing loss. The BAHA consists of an external sound processor, which is connected via an abutment to an implant in the bone. This converts sound into vibrations, which pass through the bone to be detected by the inner ear. However, it is not only ENT surgeons who played a part in its development. The concept of bone conduction was attributed to both Girolamo Cardano and Giovanni Ingrassia in the 1550s. Ingrassia is most well known for his discovery of the stapes but Cardano was the first to publish his findings that sound could be transmitted by a rod when held in the teeth of a patient.

Hieronymus Capivacci later modified this, by crudely distinguishing between conductive or sensorineural hearing loss. His patient held an iron rod in their teeth connected to the strings of a sitar. If the instrument played and the patient heard sound, he determined the problem was with the tympanic membrane, whereas if they could not hear sound, the problem was with the nerve.

This, however, was rarely used for diagnostic purposes. It was only later that bone conduction became part of a diagnostic test. The tuning fork test was described by Rinne in 1855, but was popularised after his death. In 1965, Per-Ingvar Branemark successfully osseointegrated titanium implants.

Tjellstrom furthered his work to finally solve the problem of sound absorbed by soft tissue with bone conduction hearing aids, to create the first BAHA.

Isambard Kingdom Brunel's narrow escape

AUTHOR: Hussein Walijee

Spring, 1843 would go down in history as the time, great civil engineer Isambard Kingdom Brunel would cross paths with the most renowned surgeon at the time, Sir Benjamin Brodie. Brunel had several narrow escapes with his life, but the most extraordinary accident which befell him, occurred while one day entertaining some children with conjuring tricks involving passing a half-sovereign coin through his mouth and out at his ear. Unfortunately, Brunel accidentally swallowed the coin, with a bout of violent convulsive coughing ensuing. Brunel consulted multiple clinicians over the following fortnight to be eventually referred to Sir Benjamin Brodie. Based on the history, the coin was suspected to be lodged in his right main bronchus. Multiple attempts were made to expel the coin, all in vain. Three weeks from the initial incident, Brunel was strapped prone to a device resembling a 'see-saw' with his head angled towards the ground. This led to a distinctive perception of a loose object slipping towards the trachea and dropping back into the chest on returning to an upright position. The coughing was distressing and the appearance of choking, alarming; this too was abandoned. Eventually, Brunel consented for a tracheotomy with a view to retrieve the coin with specially designed foreceps. A lack of anaesthesia during the procedure meant Brunel continued to cough, making retrieval attempts impossible. He was later placed on the 'see-saw' with heavy strikes to the back, the coin fell into his mouth, and Brunel lived to tell the tale!

Edison's Deafness

AUTHOR: Thomas Geyton

Thomas Edison is widely renowned as one of history's greatest scientists. In 2012 Time magazine named him as one of their top 20 most influential Americans of all time. What is less well known however is that even in early childhood he was almost completely deaf. Edison was even expelled from school after only 3 months. His teacher, Mr. Crawford, called him "addled" and said that he had something wrong with his brain and that he would never be able to learn. There is much speculation about the causes of Edison's deafness. We explore a number of sources including accounts of a traumatic "boxing" of his ears by a rail conductor, scarlet fever and chronic otitis media. Edison is said to have declined surgery on account his fear that good hearing would disrupt his thought processes and impede his thinking. It is still believed by many biographers that Edison's Deafness made him particularly apt to focus on inventions based on conducting sound, from the telegraph to the telephone.

Tonsillectomy through the 20th Century; comparing patient experiences

AUTHOR: Neil Jones

Tonsillectomy is now accepted as a core Ear, Nose and Throat specialty procedure, but there was a time when such a procedure was much rarer. As a procedure, it is renowned as being painful for the patient, but it is also associated with a procedure performed on the young. The prophylactic nature of tonsillectomy was only really accepted post World War 2, but before this, areas of the country where inpatient ENT facilities were unavailable would not even consider the operation. Birmingham Ear Hospital moved to Edmund Street premises in 1891, though tonsillectomy only became fashionable after the turn of the twentieth century.

This prompted the formation specialist adenoid and tonsil clinics to consider surgery for both preventative and curative purposes. Although there is notable documentation regarding the instruments used, techniques advocated, and the progression of tonsillectomy over the years following it's rise to popularity, we seldom reflect on the impact we have on our patients. Many patients recount horrific experiences of their surgery, recounting having to 'paint their tonsils with vile liquid' and having to stay in the midst of 'foul smelling' ward environments. In present day we are legally required to advise our patients regarding post-operative pain and what to expect, but in a time when this was not customary, or to a certain extent underplayed, patients had somewhat different experiences.

McIndoe's Guinea Pig Club – the good, the bad and the ugly

AUTHOR: Anastasha Herman

Sir Archibald Hector McIndoe was a pioneer in the field of facial reconstructive surgery during the Second World War. To this day, his name can be frequently heard at any operating theatre as many dissecting surgical instruments were named after him. In addition to inventing new techniques and instruments, McIndoe was also famous for establishing the Guinea Pig Club in June 1941 in East Grinstead, Sussex. Initially set up as a drinking club for his aircrew patients and the doctors working at Queen Victoria Hospital, it quickly became a rehabilitation community where patients suffering severe burn injuries can integrate back to civilian life in an informal and non-judgmental setting. To shed a different light to this otherwise inspirational story, reports of sexual harassment from nurses who attended members of the Guinea Pig Club have recently been uncovered. Some left within weeks of starting, but most of them stayed on feeling powerless. They described how McIndoe turned a blind eye to all of this as he thought that his patients had suffered more than they should.

McIndoe died in April 1960, but his legacy lived on in the lives of hundreds of soldiers who were given a second chance in life. Many of them continued to travel across the world to attend the annual reunion at East Grinstead until the last meeting, which was held in 2007.

Laryngeal Tuberculosis: What the Victorians can Teach Us

AUTHOR: Munira Ally

Tuberculosis (TB) is an infectious disease, caused by Mycobacterium tuberculosis and has been present in humans since antiquity. In the 19th Century due to an increasing population, urbanization and poor environmental conditions TB became endemic across Europe and America. It most commonly affects the lungs but can present with extrapulmonary manifestations including the larynx. In 1855, Manuel Garcia described indirect laryngoscopy to the Royal Society of London and laryngoscopy soon became widely used. Thus Victorian laryngologists became experts at diagnosing and managing laryngeal TB. The patient's history included dysphonia, dysphagia, cough and shortness of breath. On laryngoscopy pathognomonic semi-solid pyriform swelling of the aryepiglottic folds could be seen. To confirm a doubtful diagnosis lung auscultation and observation of the sputum was carried out. Treatment encompassed standard treatment for TB including rest, high altitude and general sanitorium regime. Vocal rest and application of substances such as perchloride of iron and iodine, with a view to cause destruction of the laryngeal surface organisms or fibrosis was advocated. Scarification was indicated to cause relief when there was much oedema and tracheostomy was performed to alleviate dyspnea and airway obstruction. In the pre-antibiotic era, laryngeal TB was considered the commonest laryngeal disease. Since the introduction of anti-tuberculous medications and early detection methods, incidence of laryngeal TB has declined. In the UK in 2015 there were 3,065 reported cases of pulmonary TB including 14 reported cases of laryngeal TB. It is a notifiable disease and Public Health undertakes contact tracing and prophylaxis to prevent spread. To an ENT surgeon today this is now a rare disease and one that may not be considered leading to a delay in diagnosis.

Alexander Graham Bell, the Deaf Culture and Cochlear Implantation

AUTHOR: Richard Ramsden

Alexander Graham Bell is usually regarded as the inventor of the telephone in 1876, although his primacy has been contested. Less well known is his role as a deaf educator and the effect that his philosophy has had almost 100 years later in establishing the role of cochlear implantation in the rehabilitation of the profoundly deaf. He left Edinburgh for America when he was 23 years old and eventually came into serious conflict with Thomas Gallaudet, the American deaf educationalist. Both Bell and Gallaudet had deaf mothers and Bell's wife was deafened as a child. Bell and Gallaudet evolved different views on how the deaf should be educated. Bell felt that they should learn to communicate by lipreading and by amplifying residual hearing, whereas Gallaudet was committed to signing. The battle between these two powerful figures became very nasty, and its legacy lived on to the stand-off that existed between the oralist school and the signing Deaf community when cochlear implantation came on the scene in the 1980s, with charges of genocide and violent demonstrations by the Deaf community at implant meetings and conferences. The success of implantation has now largely put an end to this controversy.