Oral Surgery Club of Great Britain

Autumn Scientific Meeting

6th November 2015

The Oral Surgery Club Autumn Meeting was held at the Old Thorns, near Portsmouth, under the Presidency of Tim Mellor.

Members were treated to a full program of lectures highlighting the innovative medical work being carried out on the south coast.

Melanoma 2015 was the first presentation, given by Dr Steve Keohane, Consultant Dermatologist.

Dr Keohane highlighted his advantage in pursuing his interest in melanoma due to the historical influx of Celts from Ireland and Scotland to the sea-faring port of Portsmouth providing a local hotspot of melanoma incidence. He had seen an increase in new cases from 100 to 420 per year over a 17-year period with a further 52% increase predicted over the next 10 years.

The contemporary management of melanoma was outlined commencing with the vital role of the Clinical Nurse Specialist in support and communication throughout the patient journey. Assessment using dermoscopy and photography was highlighted together with sentinel node biopsy for melanomas greater than 1mm thickness optimised by SPECT/CT where indicated.

Treatment with surgery; slow MOHS for lentigo maligna, excision margins based on the tumour thickness although radiotherapy rather than regional node dissection was described. The evolving role of new drugs for advanced disease, helping the bodies immune system attack melanoma cells more effectively was outlined. Vemurafenib, which inhibits BRAF, a protein that promotes melanoma growth, has shown survival benefit but has side effects and may only work for a limited time. Ipilimumab helps keep T-cells active attacking melanoma cells and may provide longer term benefits but can have severe toxic side effects.

Follow up is initially in specialist centres and devolved to GPs after time periods based on the stage of the disease.

Virtual reality surgery was a thought provoking talk by Mr Advait Gandhe, Consultant Orthopaedic Surgeon.

Mr Gandhe is a thoughtful innovative orthopaedic surgeon, early clues being provided by his intercalated first class honours BSc with a thesis in 3D surgical simulation. His presentation began on the solid ground of his development of a smart phone app to allow surgeons to learn and practise operations using high quality graphics. This was intended to address the problem of reduced training time for trainee surgeons and the need to prepare surgeons rapidly for unfamiliar or uncommon operations. The app was taken up commercially and is widely available, endorsed by the Royal College of Surgeons of England, as Touch Surgery.

There followed a softer, more theoretical tour of business development, motivation and the evolution of medical technology. The Touch Surgery website, unlike newspaper articles on the app, makes no mention of his founding role. His philosophical observation was that although others wanted to take credit for your work you should be happy if it is a good product. He emphasised the three key factors in motivating as autonomy, purpose and mastery. He then explained that the highs and lows of Scott's parabola of new innovations could follow Gartners Hype Cycle and progress up the slope of enlightenment.

The final part of this presentation returned to the more practical problems of tackling the challenge of expensive virtual reality simulators limiting access to the technology, especially in the Third World. However, he had been involved in using smart phone apps in conjunction with simple headsets to position the phones immediately in front of your eyes to produce a virtual reality effect. Those of us who tried this set up at the conclusion of the presentation were impressed by the effect of being in an operating theatre that you could look around, including a young lady lying on the operating table.

Minimally invasive colorectal surgery was an attempted Skype presentation from Shanghai by Mr Jim Khan.

In many ways, this was an homage to the Eurovision Song Contest broadcasts of the 1960's. Those with long memories will recall Katie Boyle asking Grenoble for their votes, sometimes making contact, sometimes not. When contact via the embryonic European telephone networks was eventually made the response could easily be 'nul points'.

Fast forward to 2015 and Mr Khan was unfortunately double booked and presenting at a conference in Shanghai. However, he was keen to share his expertise and attempted to give his OSCGB presentation from China, including a PowerPoint presentation, using Skype…

Whether it was Chinese censorship of the Internet or too much bandwidth being occupied by the ISIS twitter feed from Syria is not clear, but this valiant effort was limited to a frozen image of Mr Khan. This was a great shame as, judging by the other excellent presentations, we missed a treat.

Modern concepts of diabetes management and why I should care about diabetes in my patients was the pre-prandial presentation by Dr Jana Bujanova, Research Fellow in Diabetes.

Dr Bujanova highlighted the importance of glycated haemoglobin, Hb1Ac, as a measure of diabetes control as it represents the average plasma glucose over the previous three months; the life of red cells. Raised Hb1Ac is associated with complications of diabetes including microvascular problems with the kidneys and eyes, amputations, heart attacks and death. A 1% reduction in HbA1Ac produces a 37% reduction in complications.

She summarised current approaches to diabetes management with the use of insulin sensitisers, such as metformin; insulin releasers, such as DPP-4 and SGLT-2 which prolong the action of incretin; and insulin replacement, with new formulations, long and short acting combinations and use of pumps.

She then encouraged us to befriend glucose management for surgical patients, especially the 10% who have diabetes. High glucose levels could produce complications such as infections, delayed

healing, and other increased morbidity and mortality. Too low and hypoglycaemic symptoms were a risk. A pre-operative HbAc1 of <8.5% was recommended, often requiring insulin to achieve this outcome. A peri-operative target of 6-10 mmol/l glucose was advised with reducing starving time, reducing surgical stress, early resumption of the normal regime and minimising the duration of subcutaneous insulin highlighted as means of achieving this target.

Evolving role of endoscopy: Should surgeons feel threatened? Was the post-prandial presentation by Dr Predeep Bhandari, Consultant Gastroenterologist.

This tour de force would have made ENT, upper GI and lower GI surgeons feel uneasy. The overview was that with the high quality optics available in current endoscopes, use of chemical solutions to identify abnormal mucosa and current techniques of endoscopic resection, the diagnosis and management of mucosal disease, including early stage cancer, could be achieved with low morbidity by a GI tract endoscopist who knew what they were doing.

Naso-pharyngeal cancers have a 10% occurrence of synchronous oesophageal cancer. Modern endoscopes, rather than the traditional short and rigid instruments used in 'pan-endoscopy', used with Lugols Iodine to refine biopsies provide more accurate diagnosis. Large pharyngeal pouches can be successfully treated with endoscopic opening of the pouch into the adjacent oesophagus. Achalasia can be tackled endoscopically with a sub-mucosal tunnel allowing division of the circular muscle fibres over a 15cm length to produce a similar, or better, effect to Hellers myotomy.

The diagnosis of Barrett's oesophagus and higher grades of dysplasia is enhanced by the use of aceto-whitening of the mucosa to refine the biopsy target. Endoscopic resection of areas of oesophageal high-grade dysplasia with marking, ballooning of the mucosa and snare removal could avoid oesophagectomy. Early gastric cancer can produce subtle mucosal changes and the use of endoscopy and Indigo Carmine dye assists diagnosis.

Current endoscopes and blue dye enhance the identification of colonic mucosal changes including early cancers and flat polyps. Endoscopic removal and annual re-inspection avoids hemicoloctomy. Extensive low rectal polyps and early cancers in a colitic bowel can be endoscopically removed by patient and time consuming endoscopic resection, the gain being the avoidance of extensive surgical resection and permanent colostomy, particularly appealing to younger patients.

Human factors in healthcare was presented by Mr Tim Kane, Consultant Orthopaedic Surgeon.

'Only a fool learns from his mistakes. A wise man learns from the mistakes of others.' Otto von Bismarck.

This was a most interesting presentation from another thoughtful orthopaedic surgeon. There are 1,000,000 errors recorded every year in the NHS. Common factors include communication errors, inconsistent practices and failure of assertiveness. However, unlike the airline industry that follows Bismarck's advice and analyses, learns from and disseminates guidance following incidents there is no comparable system in healthcare.

There are common factors in high reliability organisations with a safety culture embracing independent investigations, standard operating procedures, safety training and systems to record and monitor operations. Increased safety is associated with increased efficiency. Unfortunately, many of these attributes are not uniformly distributed through the NHS and there is a tendency to a blame culture that does not produce improvements.

The key is to understand the causation of errors to help prevent their future occurrence. There may be an error chain, one problem leading to another; system errors, arising from long term problems; or operator error, which may be skill based, rule based or knowledge based.

The advice given by Mr Kane to make a difference was to address problems rather than having a meeting, listen to complaints constructively and to seek feedback from co-workers.

150,000 Poinsettias and genetic engineered potatoes… was the subject of a talk by Mr Jeff Hooper, Horticulturalist.

Mr Hooper presented the case for genetic engineering in a country where it is banned.

He gave an example of chrysanthemum breeding to produce an ideal bloom. This is traditionally achieved by the Mendalian method of breeding lots of chrysanthemums until an ideal version is identified. This is then selectively used for breeding to build up the stock. Because of the time taken, this was characterised as breeding for your children.

Genetic modification involves inserting genes to produce the desired characteristic, such as resistance to infection. This was a rapid means of achieving your goal and could be scaled up quickly. This was likened to using a bullet, rather than the traditional shotgun approach.

Currently, large areas of the world use GM, but not Europe. One of the key challenges that could be tackled by GM is coping with the increase in the world population, which has grown from 3 billion to 7 billion over the past 65 years and is forecast to continue rising. This is compounded by climate change where a small temperature change can produce a large reduction in crop yield. GM could help with introducing adaptations such as reducing water requirements of plants or enhancing their ability to take up nitrogen, reducing fertiliser requirements.

After the lectures, President Tim Mellor gave initial details for the overseas meeting to be held in Madrid on the 5-6th May 2016.

In the evening, the annual formal dinner was held on HMS Warrior, berthed in the Portsmouth Historic Dockyard. Enthusiastic guides, who were able to evoke a picture of life on this armoured frigate during her active service in the 1860's, escorted members and their guests around the ship in groups. A convivial dinner was then enjoyed on the mess deck.

Jonathan Hayter

Honorary Secretary