

2018 Conference and AGM

The 2018 Conference and Annual General Meeting took place at the DoubleTree by Hilton Hotel Bristol City Centre on 20th October and was attended by more than 90 people.

AGM business

Welcome and report from the Chair

Tony Thornburn welcomed everybody to the AGM, noting that the past year had been one of consolidation with stability on the Board of Trustees and increased raising of awareness of Behçet's disease (BD). Highlights included the 2017 Conference in Manchester, increased membership levels even after rationalisation, the Family Day at Haven Banks, the Northern Ireland day out, and all the marvellous fundraising efforts. Tony introduced the new administration team, Gemma Darlow and Deborah Cardinal, as well as new Trustee Catherine O'Hara. He added that more trustees with additional skill sets would always be welcome.

Achievements in the past year included wider membership and visibility across the UK, such as membership of RAIRDA (Rare Autoimmune Rheumatic Diseases Alliance), inclusion of BD in the Royal College of General Practitioners' 'Five Minutes to Change Your Practice', and clinical posters on BD at several conferences. In addition, steps have been taken towards more interactive communication with members (including plans for a new website) and a focused and targeted Research Strategy has been developed. Tony thanked the leaders of the various local support groups, saying that the Society is seeking to encourage more of this type of activity.

Finally, Tony reported that the Trustees have agreed to change the name of the Society to Behçet's UK and to come up with a more supportive, friendly-looking logo.

Financial report

Alan Lane reported that the membership of the Society stands at 1159, of which 987 are full members, 12 are junior members, 72 are associates, 30 are donors and 58 are possibly lapsed. Most (919) members are patients, 110 are carers/relatives and 59 are

medical staff. Almost three-quarters of members (835) are female, and most (938) live in England (with 85 in Wales, 60 in Scotland and 27 in Northern Ireland). Members' ages range from under 18 to over 80, with most aged between 40 and 59 years.

The largest part (53.1%) of the Society's income comes from donations, with 19.3% from subscriptions, 8.5% from legacies and 5.4% from fundraising. Another 4.3% of the income is provided by Gift Aid. Over the past year, 13.4% of the Society's expenditure was on charitable support, 13.7% was on the newsletter and 12.3% was on the AGM. For 2017–18, the Society's total income was £41,900 and the total expenditure was £60,800. Compared with the previous year, the income has gone down and the expenditure has gone up. Alan pointed out that, although the reserve has decreased from £76,300 to £57,400, this is a good thing as charities should not have large amounts of money in the bank. In addition, the Research Fund now contains £24,400; nothing has been spent from this fund in the past year, and one large donation of over £10,000 was received.

News from the Society

Judi Scott confirmed that the annual subscription remains at £20 for 2018/19 and the Grant Aid limit remains £750. She added that contributions to the newsletter from members are always welcome. Gemma Darlow, who started in her role as Administrator in May, mentioned some of the amazing fundraising efforts throughout the year. For example, Paul Weston had already raised about £6000 of the £10,000 that he aims to achieve by the end of the year, and Christmas card sales in 2017 raised more than £1000. Gemma said that her first event was the Family Day at Haven Banks in Exeter, which had been a fantastic day of great benefit to those who attended. Planning for the 2019 Family Day is ongoing.

The Judith Buckle Award

Richard West presented the Judith Buckle Award to Julie Collier, who stood down as BSS Administrator earlier in the year to work with her husband Andy on their yacht Ria. Richard quoted some of the things the Trustees had said about Julie, including that she had made an enormous difference to the Society and went well beyond the

remit of her job. They mentioned her empathy and sense of humour, and her ability to listen to people and find the best way to help them. Accepting the award, Julie said that she was passionate about connecting people and that she loved talking to people and helping them.

Nutrition for Behçet's patients

Prof Farida Fortune, Clinical Lead at the London Centre, pointed out how the typical British meal has declined over the centuries. Until the middle ages, soups such as pottage (a vegetable soup) were the mainstay of the diet. French cooking became fashionable with the bourgeoisie in the 18th century, and the rise of the middle classes in the 19th century led to a demand for servants and consequently bland food. The Crimean War (1853–56) and the Boer War (1899–1902) meant that food from abroad became unavailable, and the Industrial Revolution led to 20th century people working in factories and not having time to grow their own food. Now, many people enjoy foreign cuisines and prefer to buy their food packaged and ready-prepared.

Prof Fortune's own experience with BD patients showed that 90% of those with mucosal disease had low vitamin D levels in 2010, and many still do in 2018. In addition, 30% have low folate levels and 10% have low zinc. Also, many women of reproductive age have low iron levels, while vegetarians and people with coeliac disease may have vitamin B12 deficiency. Clinical symptoms of nutritional deficiencies include fatigue, muscle weakness, headaches, dizziness, bloating, shortness of breath, and mental confusion or forgetfulness.

It is important to eat foods that are rich in iron, vitamin B12, vitamin D, folic acid and zinc. Until about 15 years ago, a typical British plate of food consisted of meat and two veg, with fish replacing meat once a week. People tended to have breakfast, a main meal at lunchtime and a light supper. Now, increasing numbers of people are on gluten-free, dairy-free, fat-free, vegetarian, vegan or even 'breathetarian' diets, encouraged by things they read on the internet or on social media.

Food you may need



Around 22% of the UK population believe they have a food allergy or intolerance, whereas only 2% actually have a food allergy. About 7% of UK adults avoid gluten because they believe they are allergic or intolerant, but the true percentage is just over 1%. Another 10% avoid gluten as part of a healthy lifestyle, although most of them consume hidden gluten in crisps, ketchup and beer. A large study published in the BMJ found no association between gluten intake and risk of heart disease among more than 100,000 people followed for 26 years. However, restricting gluten may result in a low intake of whole grains, which are themselves associated with lower cardiovascular risk. People who stop eating gluten often start cooking their own food, and this is probably the real reason that they feel better. Some people are allergic to or intolerant of dairy products. Prof Fortune cautioned that BD patients who need to follow a dairy-free diet must make sure they get calcium from other sources, as BD patients are at risk of osteoporosis because of certain medications and decreased mobility in some cases.

One thing that people should be eating less of is sugar, which increases the risk of obesity, diabetes and heart disease, as well as causing tooth decay, which is a particular problem in BD. It is important to be aware of hidden sugar in products such as fresh orange juice and breakfast cereals; a small potato contains 5 teaspoons of sugar. Another thing to eat less of is salt, which raises blood pressure, harms the brain and causes strokes, heart attacks and kidney damage. Other considerations include flavour enhancers, preservatives and colourants in processed foods. In addition, rice, wheat

and grains can absorb damaging heavy metals from the soil, as can fish from the water they live in.

Prof Fortune finished by saying that the so-called flexitarian diet, which includes all food types but with less meat than a traditional diet, is a healthy idea. People are likely to feel better if they eat fresh, home-cooked food. The 'Healthy Eating Plate' and the 'Eatwell Guide' give advice on the composition of a balanced diet.

The eye and Behçet's disease

Prof Miles Stanford, Consultant Ophthalmologist at the London Centre, explained that 50–70% of BD patients have ocular involvement, which usually develops within 3 years of mouth ulcers and is the initial sign of disease in 20% of patients. Both eyes are usually affected. Affected eyes may become red, painful and light-sensitive, or may develop blurring of vision with floaters (small dots or shapes floating in the field of vision). However, floaters are very common, and most are not sinister. Some patients may develop a red eye with a headache that keeps them awake at night, and others may see flashing lights. Sudden loss of part of or the whole field of vision can occur, with the latter being caused by vein occlusion or vitreous haemorrhage.

Anterior uveitis, affecting the front of the eye, may show spontaneous resolution, and patients with only anterior disease usually have a good outcome. Hypopyon (layering of white blood cells in the anterior chamber) occurs in a third of cases. Posterior uveitis in BD involves inflammation in the vitreous jelly and/or the retinal blood vessels. Blood vessels can become blocked, and secondary complications include vitreous haemorrhage from new vessel formation. Posterior uveitis leads to loss of sight if not treated. Preventing it progressing can be difficult, and relapses are common.

Anterior uveitis may not need treatment, and topical treatment is usually sufficient. Posterior uveitis, on the other hand, almost always needs systemic treatment. It is conventionally treated with corticosteroids, and second-line therapy is usually needed. A study in London hospitals found that, with immunosuppressant therapy, a quarter of patients did well, half retained visual acuity and a quarter did badly, with 15% losing

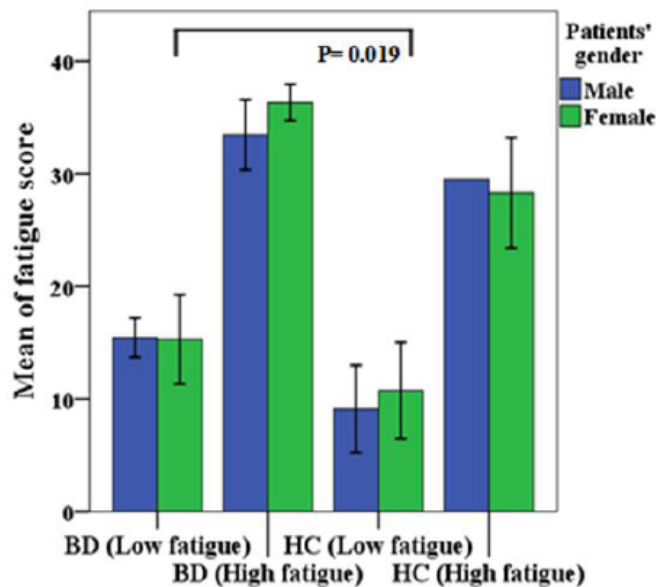
their sight. However, biologic agents have made a big difference, and only 1% of patients attending the Centres of Excellence lost their vision last year.

Why are Behçet's patients always tired?

Dr Amal Senusi from the London Centre presented her research on fatigue in BD patients. She began by explaining that fatigue is more than just tiredness; patients use words such as 'lethargic', 'exhausted', 'lack of energy' or 'feeling run down' to describe it. Treatable short-term causes of fatigue include anaemia, diabetes and thyroid disease, but the fatigue of chronic diseases such as BD is different. Between 73% and 86% of BD patients have high fatigue scores, and the fatigue can be exacerbated by factors such as depressive mood, sleep disturbance and an unhealthy lifestyle. Patients may complain of lack of motivation or ability to begin an activity, tiring easily once an activity has begun, or mental fatigue and difficulty with the concentration needed to finish an activity. In addition, 66% of BD patients experience poor quality of sleep.

Dr Senusi studied 97 BD patients and 30 healthy controls, using the Multi-dimensional Assessment of Fatigue (FAS), the Pittsburgh Sleep Quality Index (PSQI) and severity scores for oral and genital ulcers, as well as measuring levels of various cytokines, alpha-melanocyte-stimulating hormone (α -MSH) and vasoactive intestinal peptide (VIP). FAS and PSQI scores and concentrations of interleukin (IL)-6, α -MSH and VIP were all higher in BD patients than controls, whereas other cytokines such as IL-1 β , IL-10 and TNF α did not differ. Even BD patients with low FAS scores had significantly higher scores than did healthy controls with low scores, as well as higher α -MSH, VIP and IL-6 scores.

Fatigue in BD Patients and HC



In a framework examining the influences of the various factors, BD treatment did not affect fatigue or sleep, while fatigue had a 55% impact on disease activity and sleep quality had a 34–36% impact. VIP level had an impact on sleep, and α -MSH had an impact on both fatigue and sleep. Dr Senusi suggested that increased understanding of the complex interaction pathway of IL-6, α -MSH and VIP might lead to novel approaches to the treatment of fatigue and poor sleep quality in BD patients. The next step in the research is to look at the effect of these molecules on immune cells from patients.

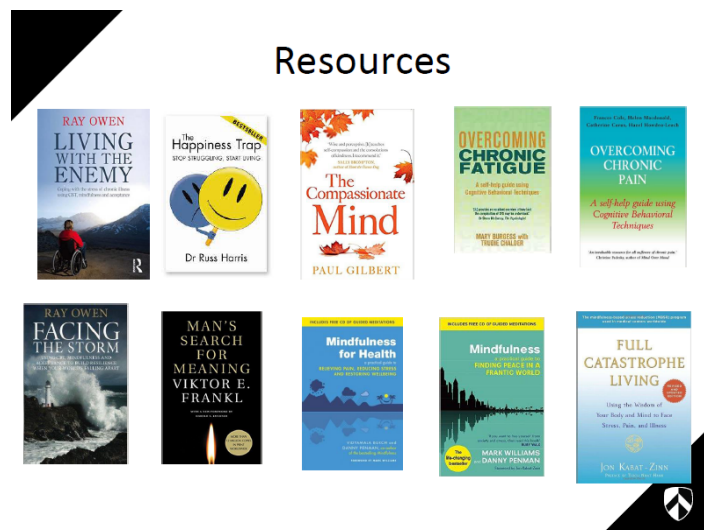
Psychological aspects of living with BD

Dr Steve Higgins, Clinical Psychologist at the London Centre, said that the aim of the psychologists at the centres was to support ordinary people who are living with BD. He began by explaining Gilbert's three basic systems of motivation: threats, drive (or goals) and soothing. These systems are shaped by our early life experiences while growing up and continuing experiences throughout our lives. The drive and threat systems, in particular, are developed by educational and employment experiences. People's early life experiences influence how they cope with adversity, shaping people's thoughts, feelings and relations with themselves, others and the wider world. Parenting is an important blueprint for these relationships, and in most cases the

parenting is good enough. Most people develop a mixture of positive and negative beliefs about themselves, the world and others in it.

The Behçet's journey involves making sense of the experience of symptoms, ill health and seeking help. It includes coming to terms with the diagnosis (which can be a relief), receiving help and treatment, and realising that there is no cure and that life may be different. Following diagnosis, the five stages of grief are relevant, comprising denial, anger, bargaining (the what-ifs), depression and acceptance (or rather acceptability). This is not a linear path, and stages can be revisited. Rebuilding one's life means living with, and making room for, BD – reshaping your relationship with yourself. Values-based living recognises the acceptability of the aspects of life you cannot change and building the commitment to continue living in accordance with your values.

People experience physical, functional, social and psychological distress because of BD. When seeing a psychologist, they seek to understand it, gain relief and find ways to move forward. They may be experiencing low mood/depression, fear and worry, pain and fatigue. Some of the psychological, behavioural and functional changes in people with BD are caused directly by flaring/immune system response. There is a mutually influencing relationship between psychological processes (the mind), the nervous system, the endocrine system and the immune system. Flares affect mood (emotions, thoughts and behaviours), cognition ('brain fog'), pain perception and fatigue. However, most people struggle to make the link between flare activity and changes in their psychological state.



Dr Higgins recommended some resources that people might find helpful. He then finished by explaining the stepped care model used by the psychologists at the centres, with screening being followed by assessment, consultation and follow-up within the multidisciplinary clinic; patients with more serious problems are referred for follow-up in a specialist psychology clinic. The psychologists can help with coping with the psychological effects of BD; managing home, family and work life; living with pain and fatigue; improving sexual wellbeing and enjoyment; and cognitive assessment.

Behçet's Patients Centres update

Prof Fortune gave an update on the Centres of Excellence, saying that the aims were to reduce the time to (and increase the accuracy of) diagnosis, reduce visual loss and other morbidity, carry out research and rationalise therapy. Patients are referred from GPs and dentists, as well as from secondary and tertiary care. About 20% of patients referred to the centres do not have BD. The centres now have an international reputation. Time to diagnosis has halved in 6 years, and only 1% of patients lose their sight compared with 10% before the centres opened. A drug pathway was introduced in 2014, and about 10% of patients need biologic drugs. Work is now ongoing to look at how treatment can be stepped down.

John Mather, BPC Operations Manager, said that the role of BPC is to ensure that patient support and provision of information is at the front of the centres' services, and that the service remains focused on the patient. The Support Coordinators are now relying more on external agencies to help patients with benefits problems, which frees up some time to concentrate more on patients' quality of life. The three Support Coordinators then spoke.

Jackie Pooler (Liverpool) reminded everyone that a long-term/chronic condition can be defined as a health problem that requires ongoing care and management over a period of years or decades. Long-term conditions are important to NHS England, which recognises 'patient activation' as the knowledge, skills and confidence a person has in managing their own health and care. Patients who are supported to become more activated have better health outcomes, improved care experiences and fewer unplanned admissions. This is important to the 15 million people living with long-term conditions who rely on the NHS. The NHS Five Year Forward View (2014)

recognises supported self-care as a key part of personalising care. Pete Moore, who has persistent pain, asthma and osteoarthritis, has put together a Self Care Toolkit with the help of Dr Frances Cole, a GP. Two important components of this toolkit are relaxation and exercise. Jackie concluded by saying that keeping active with BD can include joining a singing group or a walking group, swimming and dancing.

Jean Christians (London) continued the theme of getting active, defining it as anything that requires movement and increases the heart rate. The government recommends doing at least 20 minutes of physical activity a day. It is important to start slowly and build up gradually. Building activities into the day will improve physical health and wellbeing. Some examples include yoga, chair exercise, dog walking, gardening, housework, parking your car a bit further away or getting off the bus a stop earlier. The NHS and local councils often organise gentle walks. The best way is to find something you enjoy and that feels right for you. Exercise can help to improve and manage symptoms, such as mood, fatigue, mobility, balance and muscle strength. However, it is important to consult a healthcare professional before starting an exercise regime – they may recommend certain exercises to do based on your current condition, and ones to avoid altogether during a flare-up. Many local sports centres have reduced rates for people on certain disability benefits, and in some areas GPs are able to prescribe exercise and arrange for patients to attend a local fitness centre for free.

Rebecca Hyder (Birmingham) then spoke about volunteering, which has advantages of varied hours and flexible working hours and location. It can provide structure and routine, as well as a distraction from symptoms. In addition, it offers social opportunities and boosts self-worth and confidence, allowing people to maintain existing skills or learn new ones, or to follow a passion. Anyone thinking of volunteering should be realistic about the hours they can offer. The Do-it website is a good place to start. For patients who are able, or would like, to work, the Support Coordinators can help with support in considering the options, awareness raising with employers, writing letters informing employers about the Equality Act and reasonable adjustments, and encouraging doctors to write to employers. Many people have found the Society's Employer's Guide very useful.

The microbiome in BD

Dr Graham Wallace of the University of Birmingham explained that the millions of microbes in the human gut work in symbiosis resulting in immune regulation and homeostasis. Changes in the microbial composition can lead to dysbiosis, immune dysregulation and inflammation, but there is still doubt about whether such changes are a cause of, or are caused by, disease. Factors such as genetics, stress and antibiotics all have an impact on the microbiota, affecting the balance between beneficial and potentially harmful bacteria. The gut bacteria synthesise many essential metabolites from dietary substances, including short-chain fatty acids (SCFAs) such as butyrate. There is bidirectional communication between the gut microbiota and the brain (the gut–brain axis), involving neurotransmitters, immune cells and hormones. Disruption of the intestinal barrier resulting from dysbiosis of the gut microbiota is thought to be implicated in conditions such as Alzheimer’s disease, Parkinson’s disease and autism, as well as in anxiety and depression.

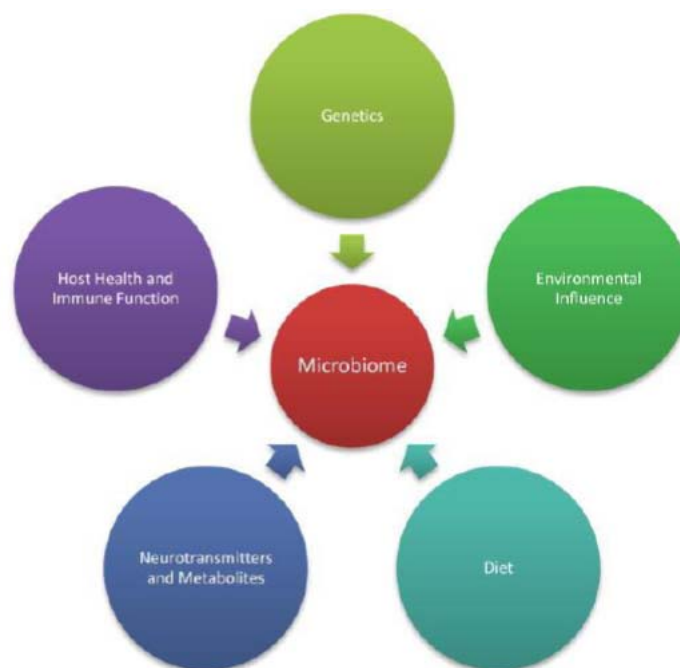
Studies have found a less diverse salivary microbial community in BD patients compared with healthy controls, with an overabundance of certain species such as *Haemophilus parainfluenzae* and *Prevotella histicola*. This reduced biodiversity has also been seen in the gut microbiota of BD patients, along with a decrease in butyrate production. This defect in butyrate production leads to reduced regulatory T-cell responses and activation of immune-pathological T-effector responses. A diet designed to increase butyrate production is being tested in BD. A study in Birmingham, using DNA analysis of faecal samples from patients with BD or mucous membrane pemphigoid and healthy controls, has found no difference in diversity between the groups, but differences in the species present. A Japanese study also found differing abundance of species between BD patients and controls. In another study, faecal microbiota transplants from BD patients caused eye inflammation in immune-deficient mice. Meanwhile, a recent study that analysed microbiota from people living in the same city found that ethnicity contributed strongly to the differences seen; this may be due to genes, diet or socioeconomic factors.

FUT2 is an important genetic factor influencing microbial diversity in the colonic mucosa. A genome-wide association study found FUT2 polymorphisms in BD patients that were associated with a non-secretor FUT2 phenotype which has been

associated with an increased risk for inflammatory and/or autoimmune disorders, as well as with reduced production of SCFAs such as butyrate.

Dr Wallace finished by talking about metabolomics analysis in BD. This is the quantitative measurement of the metabolic response of living systems to pathophysiological stimuli or genetic modification. Urine and serum samples from patients with BD and early arthritis have been analysed by NMR spectroscopy, showing clear separation between the two conditions. This type of analysis will identify specific biological pathways for further investigation, and hence (hopefully) potential targets for treatment.

In conclusion, the microbiome is influenced by genetics, the environment, diet, neurotransmitters and metabolites, and by host health and immune function. Many different microbiomes may be important in BD, including oral, gut, skin and genitourinary microbiomes. How they are linked is not yet understood.



Medical Panel Q&A and Conference close

The day finished with a question and answer session with the medical speakers. Dr Wallace was asked whether faecal transplants had been tried in BD patients. He said that this has not been done but may be considered in future; another possibility would be pellets containing important beneficial bacteria. Asked whether *Streptococcus* is

still considered an important factor in oral ulcers, Prof Fortune replied that the situation is now known to be more complicated. Prof Fortune also advised that patients with BD should have flu vaccinations, unless they are known to react strongly to vaccines.

Closing the Conference, Tony Thornburn emphasised the importance of members communicating their views to the Society, as well as communicating with each other. He urged them to respond to surveys and participate in studies if they are eligible. The date for the next AGM and Conference was announced as Saturday 19 October in Harrogate.

Clare Griffith, Editor