AUTUMN NEWSLETTER

October 2021

B.S.O.A
British Society of Orthopaedic Anaesthetists

Dear BSOA Members,

We continue to recover from events of the last 18 months and gradually remap our lives, work, and future plans.

Our final FREE webinar of the year is on the evening of the 18th October 2021. Entitled "Adjuncts to orthopaedic care-knee pain", you can view the programme here. This becomes more pertinent with our increasing waiting lists and looks at improving pain management which our patients await that ever illusive surgical procedure. Indeed, it will benefit those who are considered too frail to have surgery.

Over 2022, we will be running our annual scientific meeting via our managing company, ***Events Management Direct***, in November 2022. Lucy Parkinson-Britner (EMD) has worked tirelessly for the improvement and advancement of education for the BSOA for which we are extremely grateful.

However, on the ***31st March 2022***, the ***BSOA will be hosted and fully sponsored by Aesculap Academia***, with scientific programme organisational freedom given to the BSOA. This is very welcome support enabling the BSOA to get back on our collective feet again following the global events of the last few months. The event will be a hybrid event and will be run in Sheffield. Dr Svetlana Galitzine and Dr Nick Suarez both from Oxford will be the local organisers.

We are finalising the updating of our website. Huge thanks to **101 ltd** and **Dr Viraj Shah**, a specialist Registrar on the Birmingham rotation. The articles and links to relevant articles has been updated extensively. I am ever grateful to the current Executive team and Dr Rita Gad El-Rab (the founder of the BSOA) for their continued guidance and advice.

Our transition into a charity, focussed on educational advancement has been difficult through COVID, we have prevailed and have continued to be affiliated with the NIAA (National Institute of Academic Anaesthesia) and aim to continue awarding a grant every 1-2 years. Dr Ramesh Vijayaraghavan has been instrumental in this process as has Dr Bernadette Ratnayake.

Our executive secretary, Dr Anwar Hussein will be retiring in the near future and his tenure as secretary for the BSOA will be coming to an end in November 2021. We are extremely grateful for his stewardship, work, dedication and selflessness in his contribution to the BSOA. He has always been the "11th person" in the room, balancing every discussion candidly whilst advancing quality and direction.

We strive to be balanced in both the selection of our executive team as well as event lecturers, whilst marrying that with ability, quality, race, gender and overall inclusivity.

We therefore would be grateful to the wider membership for shows of interest for this post of Executive Secretary for the BSOA. Please contact our office to express interest in this post.

Read on for the articles and see you all soon at the next meeting.

Very best wishes

Dr EJ da Silva
President of the BSOA

Editorial Article

Nerve Injuries Secondary to the Prone Position

Emma Pack, Anaesthetic Registrar, Great Ormond Street Hospital
Jan Cernovsky, Anaesthetic Consultant, Royal National Orthopaedic Hospital

Positioning patients in the prone position intra-operatively can be necessary during several orthopaedic procedures to allow for optimal operating conditions and surgical site exposure. The physiological changes that occur in this position has also supported its use in ITU, with the Proning Severe ARDS Patients (PROSEVA) trial demonstrating a significant mortality benefit with the use of prone ventilation. The COVID-19 pandemic has led to a recent increase in the use of this position. There are several well documented complications resulting from proning, including pressure injuries, either caused directly by pressure on the affected tissue or indirectly by pressure to the vascular supply and drainage of the affected area, ophthalmic complications, peripheral nerve injuries and cardiovascular changes that can increase the risk of cardiac arrest or stroke. This article will concentrate on peripheral nerve injuries in the prone position.

Mechanisms of Nerve Injury

Injuries to the peripheral nervous system are one of the most common intra-operative complications (1), with a reported incidence of around 0.03% (2). Peripheral nerve injury is usually caused by compression or stretch of the nerve, with injury occurring if nerves are stretched beyond 5%-15% of their resting length (3). However, other mechanisms of nerve injury can occur such as ischaemia, direct trauma or damage due to metabolic derangement or an inflammatory reaction. In the American Society of Anesthesiologists (ASA) closed claims study, there is no apparent mechanism of injury in the majority of the nerve injury claims (4).

Risk Factors

The aetiology of peripheral nerve injury is multifactorial and involves patient predisposition, mechanical and physiological factors. Patient risk factors include being male (70%), a prolonged hospital stay, extremes of body habitus, smoking, hypertension, diabetes and an advanced age increases the risk of motor neuropathy (1,5). Pre-existing subclinical peripheral neuropathy or a separate abnormality along the course of a nerve can reduce the threshold at which another lesion will produce a clinically manifest nerve injury, known as the 'double-crush' phenomenon (5). For example, identifying pre-existing cubital tunnel syndrome, a pinched ulnar nerve at the level of the elbow, can identify a greater risk of post-operative ulnar nerve palsy. Physiological factors that have been associated with nerve injury include profound hypothermia, dehydration, hypovolaemia, hypotension, hypoxia and electrolyte disorders (6).

COVID-19 Patients

While peripheral nerve injury is a well-known peri-operative complication of prone positioning, it has rarely been reported in the setting of prone ARDS patients. However, there has been an alarmingly high prevalence seen in COVID-19 ARDS, approximately 14.5% (7). The reasons for this is multifactorial. In some units there has been poor proning practices due to limited staff and equipment resources during the pandemic, combined with a prolonged length of proning. Many of the risk factors for severe COVID-19 overlap with the known risk factors for peripheral nerve injury, such as diabetes, obesity and older age. Additionally, COVID-19 has been associated with muscle injury, acute inflammatory demyelinating polyneuropathy, and a virus-induced state of hyperinflammation and hypercoagulability, all of which increase the vulnerability of peripheral nerves (7).

Most Commonly Injured Nerves

Ulnar neuropathy is the most common site of peri-operative peripheral nerve injury and has also been the most commonly injured nerve in the cohort of COVID-19 ARDS patients (8). The table overleaf summarises the most common sites of nerve injury.

Reducing the risk of injury

High risk patients should be identified looking at both patient and surgical factors. A pre-operative physical examination can be valuable to identify pre-existing neuropathy, which increases the likelihood of post-operative nerve palsy. Careful proning and positioning, with supportive padding, should be carried out, aiming to decrease the amount of compression and stretch on nerves and avoid the positions that have potential to cause injury mentioned above. Checklists can be a useful tool to achieve this and to ensure that a head-to-toe check is completed pre-operatively and that

Injured nerve	% of all anaesthesia related nerve injury claims (3)	Mechanisms of injury
Ulnar	28	• Direct pressure over the cubital tunnel at the elbow • Excessive flexion of the elbow (more than 90 degrees) • Malposition of a blood pressure cuff • Accidental change in position of the arm during surgery, such as the arm falling off of the arm-board • Ulnar nerve is also relatively more sensitive to ischemia compared with the median and radial nerves (9)
Brachial plexus	20	• Abduction of the arm (more than 90 degrees) • External rotation of the arm • Contralateral head rotation and flexion
Median	4	• Extension of the elbow • Wrist hyperextension
Radial	3	• Direct compression at the spiral grove of the humerus
Common peroneal		• External compression around the head of the fibula

regular checks carried out intra-operatively. There should be close intra-operative management of physiological parameters that can predispose to neuropathy. Additionally, somatosensory evoked potentials and motor evoked potentials can be used for intra-operative neuromonitoring. While this monitoring is primarily used to monitor the integrity of the spinal cord, somatosensory evoked potential (SSEP) monitoring has been used to detect peripheral nerve conduction abnormalities, indicating peripheral nerve stress and impending injury (3).

Consent implications

The GMC's guidance titled 'Guidance on professional standards and ethics for doctors: Decision making and consent' came into effect November 2020. This emphasises the importance of joint decision making between doctors and patients, based on relevant information specific to the individual patient. While nerve injury is often discussed as a possible complication of prone surgery,
this conversation should highlight when an individual has a higher risk profile of potential injury. Risk should also be specifically addressed if a patient would be expected to attach particular significance to it, for example a lower limb nerve injury in a professional football player (6).

Diagnosis

Whilst these injuries can be severely debilitating, they are often initially asymptomatic. Symptoms often occur only after 24 hours, with over 90% of cases presenting within 7 days, presenting with either sensory (47%) or mixed motor and sensory symptoms (1). If an acute mononeuropathy is detected, a history and examination should be performed and blood investigations (full blood count, renal function, liver function, erythrocyte sedimentation rate, blood glucose, vitamin B12 and thyroid stimulating hormone) requested (6). Further investigation of potential causes of nerve injury may include targeted serum and plasma analysis, nerve conduction studies, electromyography, magnetic resonance imaging (MRI) and nerve biopsy. There can be a period of up to 2 weeks from the time of injury before neuronal degeneration is complete and consequently nerve conduction studies and electromyography and are often postponed until approximately 2 weeks after the injury (6).

Treatment

About 53% of patients will recover within a year. Those with sensory loss are more likely to make a full recovery compared with those with a mixed motor and sensory deficit, but 25% will suffer persistent pain (1). In most cases the patient can be offered only symptom relieving and supportive treatment, with options including physiotherapy, orthotic measures such as limb supports as well as pharmacological treatment for neuropathic pain. Referral for consideration of peripheral nerve decompressive surgery may be made, with guidelines recommending surgical referral in cases of nerve injury with severe axonal loss on electromyography with no recovery at 3–6 months (6).

Conclusion

Complications of prone positioning can cause serious patient morbidity. Identifying high risk patients, careful patient positioning with the use of checklists, close management of intra-operative physiological parameters and intra-operative neuromonitoring can all help to reduce the incidence of nerve injuries in this position.

References

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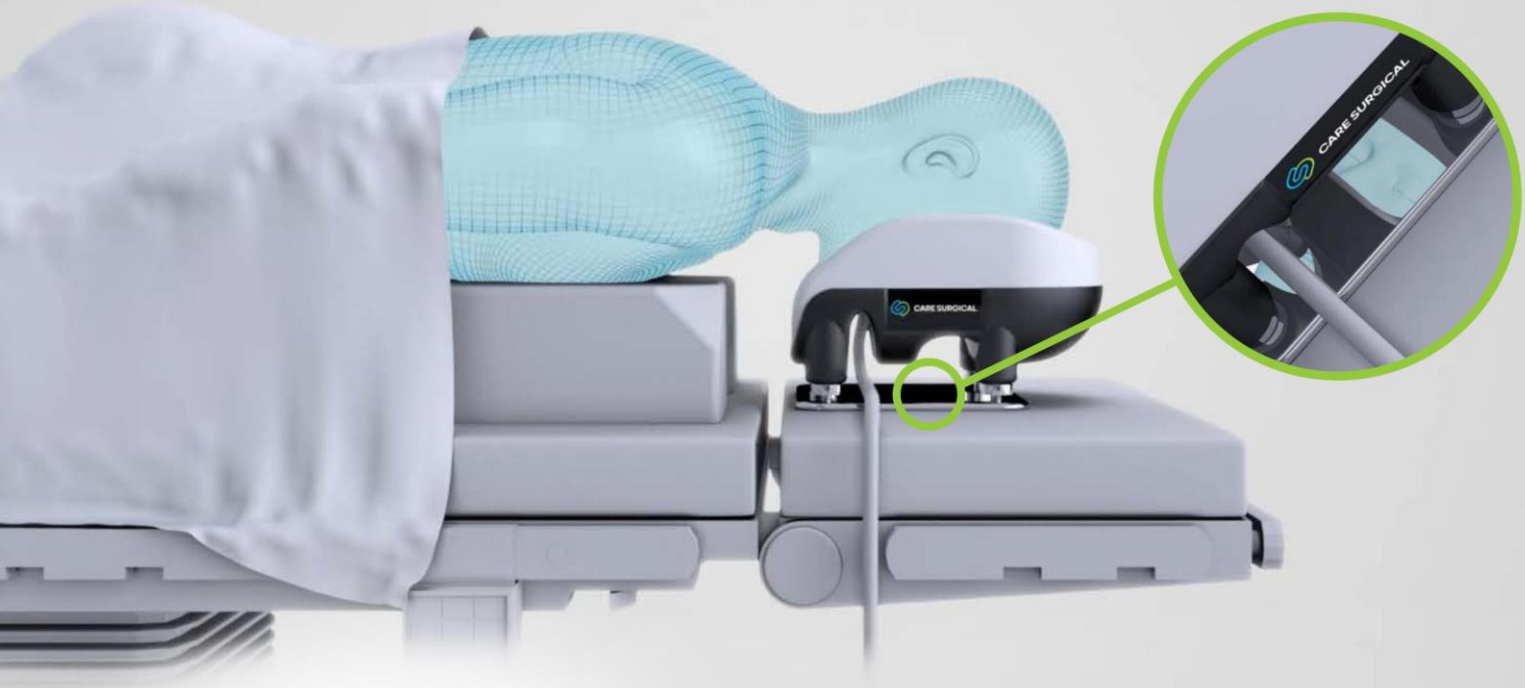
CARE SURGICAL

The CS Prone Head Support System

The Prone Head Support System and Face Cushion's open-chin design allows for rotation of the patient without the need to disconnect anaesthetic tubing.



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Tax Advice for Doctors by Andrew Fenton CTA ATT IIT (Dip), AF Tax Solutions LTD

ALLOWABLE EXPENDITURE FOR MY LIMITED COMPANY

A common question asked by clients is which expenses they are allowed to claim within their limited company accounts. Claiming business expenditure will help to reduce your company profits, and with lower profits comes a lower tax liability. By claiming every allowable expense approved by HMRC you will be able to help your business, and ultimately you, to become more tax efficient.

Motor Costs

If your limited company owns the vehicle, you can claim the full amount of money spent on fuel, insurance, tax, breakdown cover, repairs, and servicing.

If you own the vehicle personally, you can claim business mileage in order to compensate yourself for these costs.

The approved rate of business mileage is 45p per mile for the first 10,000 miles, then 25p for any mileage claimed after that.

Please note that if the vehicle is held in the company's name, you will also need to submit a P11d to HMRC each year to pay tax on the benefit of having access to the vehicle for personal use.

Business Travel

Accommodation costs and the rental of a temporary workspace is allowable providing it is reasonable. HMRC may question the size of the accommodation if this is deemed to be excessive.

The cost of flights, train fares, taxis and parking are all allowable for the travel to and from locations.

Please note you are not allowed to claim for your "regular commute," which is deemed as being the journey between your residence and a permanent place of work.

Subsistence is the amount incurred as a consequence of business travel. Typically, it relates to accommodational and meal costs incurred. These amounts are allowed because they are associated with necessary travel.

Business Entertainment

In most cases, client entertainment is not an allowable expense - this covers hosting both existing and potential new clients.

However, that being said, it is still a worthwhile exercise to pay for business entertaining through your limited company's account as you will be saving the income tax you would have to pay buy withdrawing this money from the business, then paying for the costs personally.

Staff Entertainment

A staff party or an annual function (e.g. the work Christmas party) qualifies as a tax free benefit for your employees providing that certain criteria is met namely:

The total cost must not exceed £150 per head, per year

£150 is a limit and not an allowance: if the cost is £151 the whole benefit is taxable.

Employees are able to bring a plus one to events who will qualify for an additional £150 of allowable expenditure.

The cost of the whole event is an allowable expense for your business

Trivial Benefits

You can also provide staff with gifts during the year so long as they are not performance based, and are not exchangeable for cash.

The gift must be 'trivial,' meaning £50 or less and include items such as food, drink or gift vouchers.

For directors of close company's (a company with fewer than 5 shareholders) exempt trivial benefits are capped at a total cost of £300 per year (subject to the usual £50 cap on each trivial benefit).

Bank Fees and Other Finance Charges

Bank and credit card charges are both allowable providing they are in relation to accounts held in the business's name.

Other finance charges such as interest on loans and hire purchase agreements are also an allowable expense, however not the amount in relation to the capital repayment.

Accountancy Fees

The cost of your accountant's fee can be included, however this should only cover services in relation to the company itself, rather than you personally. If you are billed separately by your accountant for the preparation of personal tax return, this fee can not be included.

Some companies may wish to engage the services of a bookkeeper to keep their affairs up to date. These costs are also an allowable business expense.

Legal and Professional
Payments made in relation to legal and professional costs are allowable providing they are exclusively for the trading company's activities.
This may include employment related matters, lease renewals, debt collection or general advice.
Costs that are in relation to capital items will not be allowable for corporation tax (e.g. property acquisition, the cancelation of company shares, or the initial purchase of a new lease).
Professional fees include secretary fees and any other administration charges you may incur.

Business Insurance
You can claim for any policies held in the company name such as professional indemnity or public liability insurance.
You can also claim for motor insurance providing the business owns the motor vehicle, or mobile phone insurance if the company owns the handset.

IT/Computer
Many software and other computer running costs can be included within your accounts, however this is often an area that people forget.
Examples may include; Office 365 subscription, Adobe licence, accounting software, and storage solutions such as iCloud.

Advertising/PR
The cost of advertising your services and generating new business leads is another cost which often gets forgotten. This may be a one-off cost for the rental of advertising space but may also include on-going services such as regular social media management or an overhaul of your company website.

Pension Contributions
Your company can contribute to an employee's pension. The contribution is made gross, and no tax or NICs are payable by the employee in respect of the contribution.
Employer contributions, unlike those by the director or employee, aren't limited by earnings – contributions can be made up to the limit of the available annual allowance and count towards it.
The annual allowance is set at £40,000 for 2021/22 (subject to any tapering considerations).
The contributions payable by the employer will normally be deductible in computing the company's profits for corporation tax purposes.

Benefits in Kind
It may be possible to extract value in forms other than cash. Benefits in kind are usually taxed on an amount known as their `cash equivalent value'.
The cash equivalent value of any benefits in kind provided to the director is treated as part of their income. Where a salary is paid that is equal to the threshold for National Insurance purposes of circa £8-9k for 2021/22, benefits in kind with a taxable value of up to £3,500 in total can be paid tax-free to mop up the remainder of the personal allowance where this has not been used elsewhere.

Capital Expenditure
In most cases, Annual Investment Allowance (AIA) allows you to deduct the full cost of assets purchased for business purposes can be claimed as qualifying expenses for AIA, with the primary categories as below:

- Office equipment including computer hardware and certain types of software, and office furniture
- From 1 April 2021 100% First Year Allowances (FYA) may be claimed on new cars where emissions are 0g (or car is electric**)**

Top Tips
Try to distinguish between business and personal costs by ensuring to use your business bank account as much as possible.
If you do pay for business expenses out of your personal account, maintain a separate record of these transactions and be sure to inform your accountant.
HMRC require you to maintain an accurate record of your income and expenditure and you are legally bound to keep this for six years.
An excellent way to ensure that you maintain an accurate record is to use cloud accounting software. This can be linked up directly to your business bank account and will ensure that all costs are tracked and recorded accurately.

For further information or for a free initial consultation to discuss your tax affairs please contact Andrew Fenton (Director at AF Tax Solutions Ltd) or Stephanie Orchard (Senior Client Manager) on 01323 845083 or email andrew@aftax.co.uk or Stephanie@aftax.co.uk

Andrew is a Chartered Tax Adviser (and a former Inspector of Taxes with HMRC) and has many years of experience in dealing with the tax affairs of medical professionals.

Stephanie is a Chartered Accountant and looks after wide range of clients and assists Andrew with the portfolio of medical clients.

B.S.O.A

British Society of Orthopaedic Anaesthetists

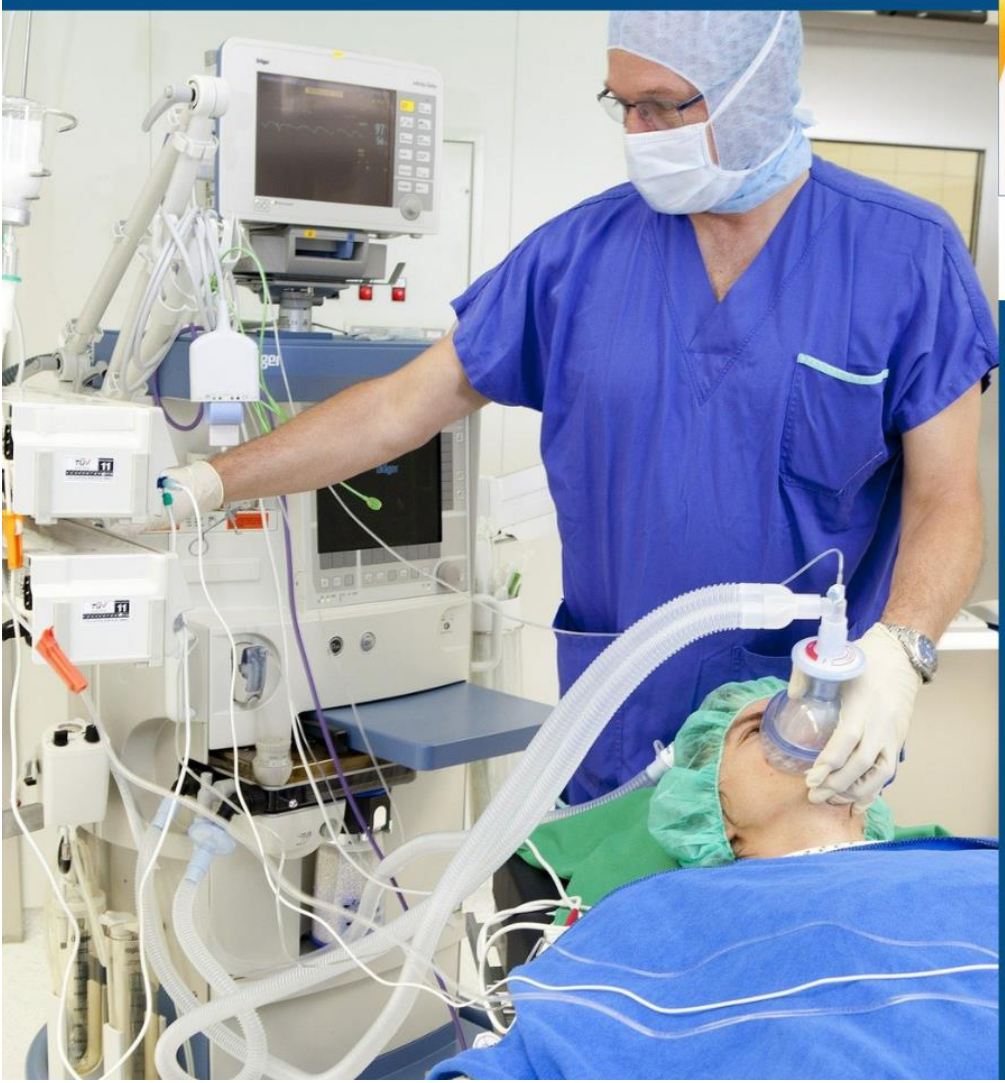
FREE EVENT

Virtual Event Series

Adjuncts to Orthopaedic Care

Mon 18th October

7PM - 8:30PM



FREE TO ATTEND

SAVE THE DATE

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UPCOMING BSOA EVENTS

Following the release of the first two episodes in June 2021, the Virtual Event Series is back for its third episode in October!

As with the previous instalments, we will release another FREE webinar which will feature two virtual lectures followed by a live Q&A session. The event is scheduled to take place at **19.00-20.15 on Monday 18th October and registration is now live.**

With regards to the programme, we are pleased to welcome Dr William Murrell and Dr Benjamin Thomas who will deliver the below lectures and be available for a live Q&A at the end of the session so, please do prepare your questions.

Adipose Derivatives in the Treatment of Knee OA
Dr William Murrell, New York

Genicular Nerve Blocks for Chronic Knee Pain
Dr Benjamin Thomas, Chelsea & Westminster

The events will be **FREE OF CHARGE** for members and non-members alike. All delegates will also be able to access to the event content after the conference via the BSOA website which we hope will provide some flexibility for those who are not able to join us on the day. Further information about this will be circulated after the event.

Registration is now open, and you can secure your space via https://bsoa.org.uk/conference/bsoa-virtual-event-series-2021/registration/

For more information, please visit https://bsoa.org.uk/conference/bsoa-virtual-event-series-2021/ or contact Lucy at lucyparkinson@eventmanagementdirect.co.uk.

We look forward to welcoming you to the session in October.

MEMBER BENEFITS

- ✓ Reduced registration fees for BSOA meetings
- ✓ Access to free webinars
- ✓ BSOA e-newsletters and the opportunity to publish articles in future issues
- ✓ Participation and voting rights at upcoming Executive Committee elections as well as eligibility to nominate and be nominated to the Executive Committee
- ✓ Participation and voting rights at the Annual General Meeting
- ✓ Access to the members-only area on our website including: Documents Library to search documents and Member Forum to join discussions and/or search topics

Questions? Comments? Suggestions? Email us anytime: info@bsoa.org.uk

Dr EJ da Silva
Editor and President, BSOA Executive Committee