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Summary Of The First UK Cooled RF Workshop At Nottingham

Summary

BVM markets the Baylis Radio Frequency Pain Management System in the UK for treatment of chronic pain. A practical 'hands-on' cadaver workshop was organised by BVM, and held at the Nottingham City Hospital on 1st March 2008. Fifteen Pain Management Specialists from across Europe attended the workshop, which was conducted by Dr A R Cooper (Coleraine NI) and Dr Neal Evans (High Wycombe). Delegate evaluation forms clearly showed a high appreciation of the content of the workshop and called for many more to be run throughout the country in future.

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Background to Cooled-RF treatment for SIJ Syndrome

The Baylis Pain Management Systems for the treatment of Discogenic pain (TransDiscalTM) and for treatment of the Sacro-Iliac joint Syndrome (SInergyTM), uses Cooled RF technology. The Baylis Cooled RF system allows to create lesions in nervous tissue to disrupt pain originating from discs, or the SI joint, and surrounding connective tissue. The consistence of lesion shape and size is precisely maintained by the Baylis Pain management Generator.

The TransDiscalTM system uses Cooled Bipolar RF, while the SInergyTM system uses Cooled monopolar RF. In particular, the treatment of the SIJ has often not resulted in lasting pain relief, so the SInergyTM system is of particular interest.

In this minimally invasive procedure, a SInergyTM introducer is placed at a point between the SI posterior sacral foramen and the sacroiliac joint. A SInergyTM probe is then inserted through the introducer and into the tissue just superficial to the sacrum. RF energy is delivered from, and concentrated around the electrode, while the electrode is internally cooled with circulating water. RF energy heats the tissue and cooling moderates the heating in close proximity to the electrode. This combination then creates large volume lesions and successive lesions are created until lateral branches have been disrupted.

Patients typically experience some level of relief from the SIJ pain within 2-10 days of the procedure, which does not involved a general anaesthetic, and is typically completed in 45 minutes.

The key benefits of the SInergy[™] system are as follows: • Internally cooled RF for greater power applications

- · Temperature control for consistent lesion shape and size
- Spherical lesions produced (not elliptical) to enable multi-directional approach to the target structure
- Placement of the probe is straightforward and results in minimum disturbance to the overlying soft tissue
- Target energy for effective and lasting pain relief

The Workshop Presentations



Mr Naheed Visram from Baylis spoke about the physics of Cooled-RF. This included the mechanisms of the RF systems, the advantages of Cooled-RF and practical tips of equipment handling.

Dr Ron Cooper discussed discogenic pain, its prevalence, innervation of the discogenic area and pathology. He touched on existing treatments, the history of heat therapies, and finally Disc Biacuplasty procedure. He went on to detail patient selection, the procedure, inclusion/exclusion criteria, potential complications (rare) and follow up.

Dr Neal Evans quickly reviewed SIJ anatomy and SIJ innervation studies, before discussing the technique, electrode/probe placement, prevalence of the problems, lesion properties and patterns, plus procedure time savings.

Both Pain Specialists discussed practical 'tips and traps' of the two therapies – and these proved particularly helpful during the practical sessions.

The Workshop Practicum's

Delegates were divided into two groups for the practical workshop. While Group A had the chance to look at, and handle the equipment, Group B were in theatre, involved in hands on activity on cadaver, under the watchful eyes of both Dr Cooper and Dr Evans.

Equipment for the two systems is similar and comprises Introducers, probes, burettes, Pain Management Generator and pump unit. The latter controls flow rate of sterile water to the probes, and is connected to the generator which provides the RF energy. Delegates were able to look at the parameters measured and functionality of the system, via LCDs on the generator. They were also able to handle the introducers and slide into place the appropriate probe.

In the theatre, attendees were especially concerned with locating the

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needles, under C-arm vision on monitors. These were placed into the appropriate space, depending on whether they were undertaking a Biacuplasty procedure with the TransDiscal[™] system (Dr Cooper), or the SIJ procedure with the SInergy[™] system (Dr Evans). The hands-on sessions were especially appreciated and delegates benefited from each others experiences in establishing correct locations for the probes, in order to (ultimately) direct the RF energy. 'Tips of the trade' such as placing a little broad spectrum antibiotic solution into the needle track, once the procedure had been completed, were enthusiastically received by the delegates from the consultant experts.

All attendees were then able to ask further questions in a wrap-up session. It was emphasised that the most benefit of workshop attendance would be for these specialists already having experience of back pain management, such as with facet joint injections etc.

Course Conclusions

Asked to rate six key aspects of the workshop on a 1-5 basis, with 5 being excellent, all boxes were in the 4-5 range exclusively.

The main requirements from delegates were for:

- · Further training sessions and workshops
- More hands-on activities within the practical sessions
- Gaining accreditation from the Royal College of Anaesthetists, so that CME points could be awarded in future

Most of the hospitals represented at the workshop were planning to introduce the relevant procedures in the near future.



Both BVM Medical and Baylis Medical expressed their thanks to Dr Evans, Dr Cooper and the two technicians who attended to operate the C-Arms, provided by GE Healthcare.

Further similar events are planned and, for information on these, or for more information on the Baylis RF systems, please telephone BVM on 01455 614555

