

MEETINGS ROUNDUP³⁶⁰



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– New toys and new tools from ‘the windy city’

■ The recent AAOS meeting was, as always, an excellent opportunity to socialise around a foamy cappuccino, standing on the three-inch thick carpet around the booths. The new toys and developments are one of the most fascinating aspects of this meeting. With a wind chill of around 0°C throughout the week, we were keen to stay at the convention centre to explore the industry offerings of new tools and implants and to learn from some of the posters and podium presentations. There is far too much at such a massive meeting to do it justice in a short article, but some papers particularly caught our eye.

In the trauma section, we were impressed with the concept of carbon fibre plating systems.¹ Although not new (the potential applications were studied in the 1980s), the recognition that the implants we currently use are too stiff has been driving this novel material to new levels in the USA. The plates are manufactured in a laminar configuration in which two thin sheets of carbon fibre/epoxy are bound to the outer surface of a flax/epoxy core. The modulus of elasticity is close to bone, and biomechanical testing has demonstrated at least equivalent results to titanium or stainless steel plates. The radiolucent nature of this material is an added benefit for joint visualisation in proximal humeral (lateral view) and distal radial fractures (AP view). We have had some experience in our group in Denver with both of these over the past year and have seen promising early results that will require validation in prospective clinical trials. We are waiting anxiously for the development of a distal femoral plate where the healing difficulty rate using current technology is reported to be around 20%.²

Minimally invasive surgery was a popular topic and in parallel, the industry is following with innovative tools that can help us achieve our target. Balloon inflation-plasty for the reduction of peri-articular fractures has gained popularity, especially for depressed tibial plateau fractures. It is an attractive device but comes at a cost (around \$3500 for two balloons). A recent publication³ warns about the risks and failures when using inflation-plasty. The learning curve is steep and with a complication rate of over 50%, the ‘do one, see one, teach one’ paradigm must not be applied.⁴

Patient-specific implants and intra-operative techniques to improve implant positioning occupied a large role amongst other topics. The usefulness of Lewinnek’s safe zones in acetabular cup positioning⁵ was discussed and questioned. Merle et al⁶ used pre-operative CT scans of 131 patients with primary hip osteoarthritis to determine their native anatomy and compare the pre-operative component’s orientation planning with Lewinnek’s safe zone. While 90% of cases had an acetabular anteversion within the range of the safe zone, this rate dropped to 60% and 21% when

combined anteversion and acetabular inclination were considered. Overall, only 11% of patients would have met all of Lewinnek’s safe zones, demonstrating the heterogeneity of the population and putting standardised measures under question. Significantly more work is clearly required here to re-evaluate the widely accepted concept of a reproducible safe zone.

In the reconstruction section, a few posters presented novel iodine-coated implants⁷ with the aim of reducing the infection rates (both prevention and treatment). It was interesting to see that no cytotoxic events were reported through monitoring of thyroid function tests. These implants appear to have a future in tumour surgery with large bony resections and tumour prosthesis.⁸

The AAOS was an incredible opportunity for some selected guests to attend The Bone & Joint Journal’s first ceremony at the British Consul’s residence in Chicago. Members of the board, editors, and world-renowned orthopaedic surgeons were present, all enjoying the catered petits fours and champagne from the 60th floor penthouse overlooking Michigan Lake. The essential Emma Vodden was there, sharing with the guests her ideas on the challenges and difficulties facing a modern orthopaedic journal.

The Academy will return to New Orleans next year and I would encourage you all to join us for what yet again promises to be an outstanding meeting.

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