

The Mark Paterson BJJ/EFORT Travelling Fellows May/June 2017

Fellows: Farhaan Altaf, London, UK
Derek Cawley, Republic of Ireland
Sammy Hanna, London, UK.

The Mark Paterson Travelling Fellowship 2017 (supported by BJJ and EFORT) took place this year from 15 to 30 May 2017 in Portugal, Spain and Italy culminating in the participation in the EFORT 18th Annual Congress in Vienna, Austria. The chosen sub-specialities were spine (Derek and Farhaan) and lower limb arthroplasty (Sammy).

Lisbon

The fellowship started at the Hospital CUF Descobertas – José de Mello Saude where we were hosted by Professor Jorge Mineiro and his team. This new university-affiliated private clinic is one of the largest in Lisbon. We were impressed by the application of a healthy team-based approach, the generosity of time afforded to us as fellows and the pleasant evening that we dined together. We took in some of the sights of Lisbon by climbing to the Miradouro da Senhora do Monte, walking along the streets of Baixa and jogging along the new quays at the Tejo estuary. We also dined at a proper fish restaurant- where one paid by the weight of the fish, not by the recipe!



Figure 1: The Ponte Vasco da Gama after dawn- great to escape work for a while!



Figure 2: The team at Hospital CUF Descobertas with the Paterson/BJJ Travelling Fellows.

We joined the spine team in theatre on the first day of the fellowship. The most interesting case was that of a patient with neurogenic claudication and MRI findings consistent with an heterogeneous extradural lesion, most likely a tumour. Our experience was enriched by the extensive discussions regarding paediatric, deformity and revision cases. The routine application of sagittal balance principles to diagnosis and rehabilitation in low back pain patients was interesting. The spine team made a presentation regarding the ongoing projects including anterior spinal fusion research and local school screening programmes for scoliosis.

The lower limb surgery team displayed innovative techniques in injection therapy with the use of platelet-rich plasma and hyaluronic acid blends. In accordance with recent research demonstrating the beneficial conjugation of HA viscosupplementation with PRP regenerative properties, these injections were trialled at the clinic for patients with early osteoarthritis. We await the long-term outcomes!

The team also gave the fellows an opportunity to present some of our previous research projects.

Barcelona

The second stop on the tour was at Hospital Universitari Quiron Dexeus where we were hosted by Prof. Enric Palou Caceres and his team. Cases for discussion included management of osteoporotic odontoid peg fractures and degenerative lumbar deformity – both of increasing relevance in our health systems. Prof. Manuel Ribas was particularly impressive with his demonstration of the SuperPath approach to the hip whilst performing a total hip replacement and a hip resurfacing arthroplasty through a posterior approach. Spinal research was discussed at Val d'Hebron university hospital with Prof Ferran Pelise, including both that of the European Spinal Study Group which is based at Val d'Hebron and local projects including techniques in enhancing allografts and cosmetic assessment of scoliosis. We were treated to attend a FC Barcelona football game at the famous Camp Nou. The weekend afforded us the opportunity to visit Barcelona's many tourist sites.

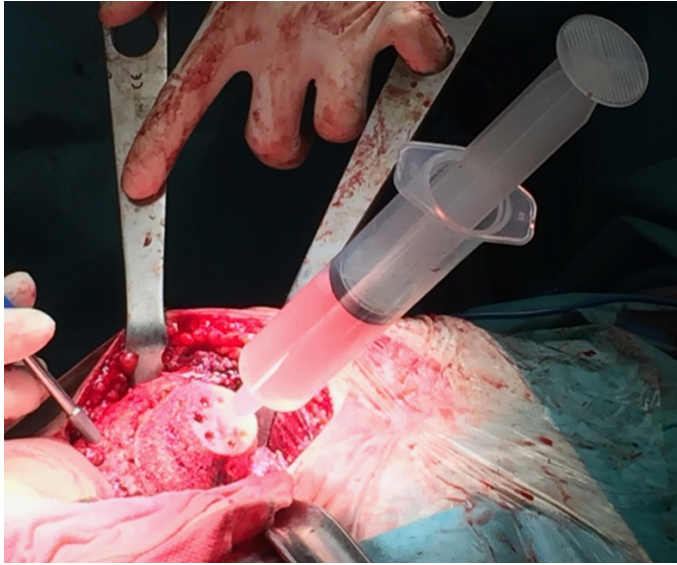


Figure 3: Irrigation of the femoral head prior to cementation during a total hip resurfacing arthroplasty (Prof Ribas). The pertrochanteric suction vent ensured that the irrigation fluid from the bladder syringe was drawn through the femoral neck, resembling a baby's mouth sucking a bottle!



Figure 4: FC Barcelona at the Camp Nou (Derek, Farhaan, Sammy)

Bologna

The third stop on the tour was at the Istituto Ortopedico Rizzoli in Bologna where we were hosted by Prof Stefano Zaffagnini. The city has long been a seat of learning and its students included such iconic names as Dante, Petrarch, Galvani, Malpighi and Valsalva. This centre eclipsed a global pillar of orthopaedic surgery in terms of its history, its range of orthopaedic services and its advances in treatment and diagnosis. It remains a mystery how patients ever made it up the hill! The Biblioteca Umberto I, the library created by the original monks and handed over to a succession of orthopaedic surgeons, not least Putti was breathtaking as it included both manuscripts from the original anatomy theatres of Padua, Bologna and the

Arab world, all at least 500 years old. Furthermore, Prof Zaffagnini arranged a walking tour of Bologna and we joined him for dinner at Piazza Santo Stefano, the Square of Seven Churches. The team members entertained us in style by bringing us to a FC Bologna match, gave us a tour of the Isokinetic centre (a FIFA medical centre for sports rehabilitation) and to the local Ducati motorbike museum. They showed us the real side of Bologna and joined us for dinner- although we could not manage the raw horse meat!

The local technique for anterior cruciate ligament reconstruction was popularised by Prof. Marcacci many years before, which includes a double bundle technique that attempts to reproduce the kinematic effects of both the anteromedial and posterolateral bundles of the ACL. This has since been availed of by many athletes including Serie A Italian soccer players, back to playing within 3 months in some cases. Additional stabilisation of the antero-lateral ligament can be achieved by employing the 'over the top' technique which uses a single bundle graft that is passed through the intercondylar notch, around the lateral femoral condyle and fastened to the anterolateral tibia. 25-year results will be published later this year.

The spine team of Dr di Sylvestre operated on many complex cases during our stay including proximal junction kyphosis, staged procedures for severe idiopathic scoliosis and iatrogenic flatback deformity. Working with Dr Vomare, the two surgeons were very impressive as they worked simultaneously instrumenting both sides of the spine. Dr Gassbarini brought us to nearby Florence for a total en bloc spondylectomy for a T6 osteogenic sarcoma.



Figure 5: Outside the Rizzoli Institute



Figure 6: Intra-operative image of a posterior scoliosis correction. The tradition amongst the spinal teams that we observed was for two operators to work simultaneously for every complex case. The surgeon's hands are evident inserting pedicle finders to the convex (left) and concave (right) aspects of the spinal curve.

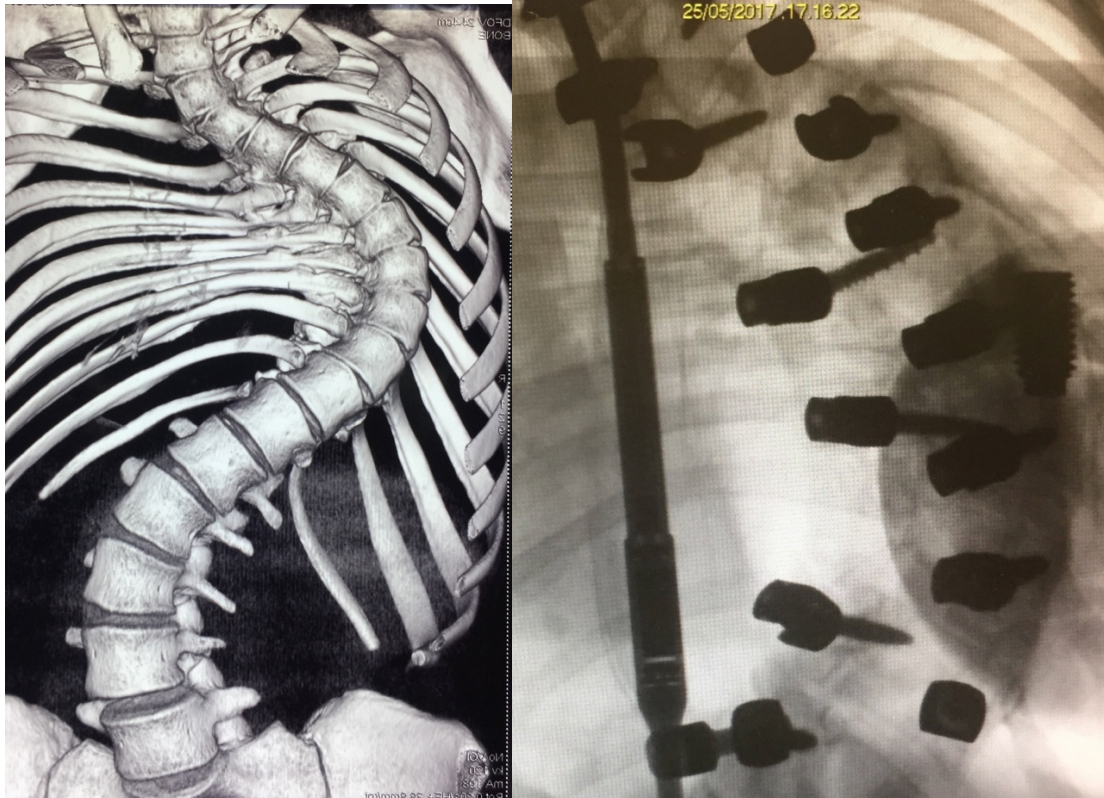


Figure 7: Severe scoliosis case- left: CT reconstruction, right- intra-operative fluoroscopy demonstrating multilevel pedicle screws and on the concave side, a dynamic magnetic rod for graduated post-operative distraction prior to the second stage of the surgery.

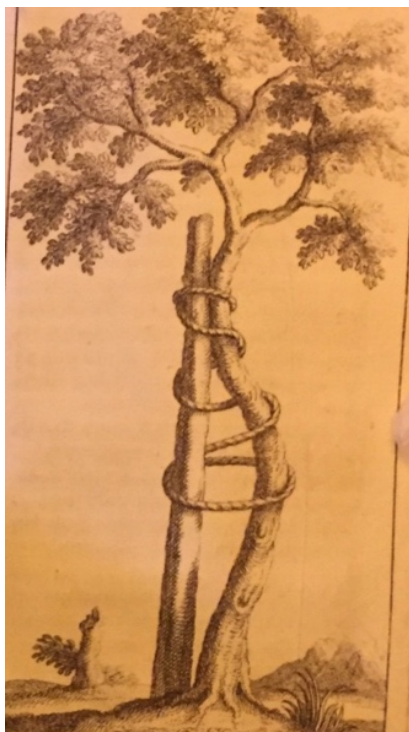


Figure 8: The original of the recognisable splinted crooked tree metaphor, one of the many interesting manuscripts collected by Prof Putti.



Figure 9: The Anatomical Theatre of the Archiginnasio, was mostly reconstructed after WW2, but whose origins trace back to the University of Bologna which was founded in 1088. The surrounding walls depict wooden statues of famous physicians of ancient times with the “Spallati” or skinned statues supporting the teacher’s chair and the dissection table at the centre.

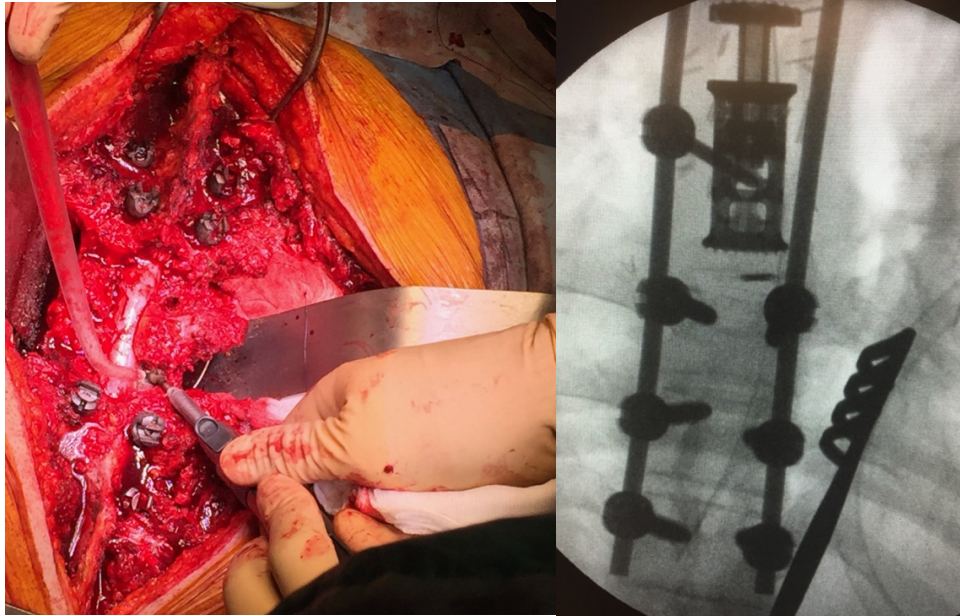


Figure 10: Total en-bloc resection of a mid-thoracic osteogenic sarcoma: left- intra-operative image of a posterior approach to the spine demonstrating wide retractors placed deep to the spinal column and superficial to the great vessels, the high speed burr which is demarcating posterior resection margins and the levels of the vertebrae to be resected, right- intra-operative fluoroscopy demonstrating an expandable vertebrectomy cage and pedicle screws-at 3 levels below and 2 levels above the vertebrectomy and a screw inserted in the cage.

Vienna

The EFORT conference in Vienna was a suitable finale to an enjoyable learning experience. While attending the sub-speciality workshops, research presentations and state-of-the-art discussions, our European experience allowed us a greater appreciation of different perspectives. It was enjoyable to hear about ongoing projects in countries that would not typically feature in the UK/US dominated literature. We were also invited to evening events hosted by the BJJ/EFORT and Medacta/EFORT Alumni.

The fellowship was a valuable and thought provoking experience. We were treated very well and we were allowed privileged access to theatres and clinics at centres of excellence. The informal conversations with experienced surgeons proved as ever a real insight into the experiences- both good and bad that are not always as well described in the literature. We would encourage all trainee orthopaedic surgeons to avail of educational opportunities such as the Mark Paterson/BJJ EFORT Travelling Fellowship.



Figure 11: The EFORT fellows with Sanni Hiltunen, the dedicated and tireless organiser. Thank you Sanni !