

Report Visiting Fellowships

Name: Rajiv Kaila Country of residence: UK Country of visiting fellowship: Switzerland Name of the host: **Panyiotis Christofopolous, La Tour Hospital, Geneva** Dates of visiting fellowship: 09/08/2019-28/09/2019

- 1. Description of clinical activities during the fellowship
- 2. Description of scientific activities during the fellowship
- 3. Description of social aspects of the fellowship
- 4. Technical skills that I learnt during the fellowship
- 5. Theoretical knowledge that I learnt during the fellowship
- 6. New knowledge and skills that I can implement in my own practice

7. Overall reflective statement over how the fellowship contributed to my professional development

8. What are your future plans?

Report to EFORT:

1. Description of clinical activities during the fellowship

Each week commenced with operating lists all day on Monday and Tuesday morning. Tuesday afternoon and all day Wednesday were dedicated to clinic consultations. Activities on Thursday were operating list or clinic consultations on alternate weeks.

Theatre sessions commenced early at 07:30. On several occasions there were 2 operating theatres running simultaneously with 2 separate anaesthetic teams and nursing teams. The efficiency of patient turnover and care was of a very high standard and enabled many cases to be performed without wasting time.

Operating cases had a wide variation including anterior and posterior total hip replacements, open hip disarticulation, hip arthroscopy to treat sub-spinous impingement, cam and pincer impingement.

The breadth of surgical case variation also included treating femoral neck fractures, acetabular fractures, oncological cases involving femoral and hip metastases.

Clinic consultations highlighted the importance of utilising patient reported outcome measures which the host has embraced with data collection using Ipads.

Consultations were similar to my own experience from working in the UK, France, Australia and New Zealand utilising discussions with patients, reviewing imaging including Xrays, MRI, CT scans, MRI arthrograms, clinical examination and explaining surgical procedures, benefits and risks.

The breadth of surgical case variation was wide and encompassed young and old patients with primary and secondary osteoarthritis, degenerative dysplasia of the hip, oncological cases, Perthes disease, avascular necrosis and PVNS.



2. Description of scientific activities during the fellowship

The host has a great interest in research and scientific evaluation which suited my own interests. I had opportunity to assist with over 4 research paper reviews. I also was welcomed to be involved in 2 research studies being evaluated and aided in writing of the publications, reviewing data and making suggestions to improve the studies.

3. Description of social aspects of the fellowship

On the weekends, I had opportunity to visit central Geneva, the old town, museums, Cathedrals, parks and The European Organization for Nuclear Research (CERN) and local events including the Geneva food festival.

The host involved me in socialising with colleagues at the hospital and there were occasions where we ate outside together. He also arranged a farewell dinner.

4. Technical skills that I learnt during the fellowship

I had ample opportunity to be involved in pre-operative decision making of type of total hip prostheses to be used (custom or standard), pre-planning of implant sizes and positioning with Xray templating. I also gained experience in setting up patients in the operating room, in particular gaining skill with traction limb holders for anterior hip replacement and hip arthroscopy. I gained experience in methods of open hip disarticulation using a stepped greater trochanteric osteotomy, anterior and posterior hip arthroplasty for primary and revision cases. Revision hip replacement experience included use of trabecula metal hip acetabulum cups, long stem femoral stems, Explant system for cup removal and femoral window osteotomies for stem extraction. Other experience included performing hip arthroscopy to treat subspinous impingement, and cam and pincer lesions. The case variation also enabled me to take part and improve knowledge in cementation techniques, ensuring femoral and acetabular reaming is undertaken appropriately to enable correct implant size and alignment positioning.

5. Theoretical knowledge that I learnt during the fellowship

The experience has provided me with an improved understanding of decision making when faced with abnormalities from Perthes disease, hip dysplasia, abnormalities with femoral neck torsion, avascular necrosis and dysplasia of the hip in terms of treatment options, utilising templating to ensure correct implant size and positioning, critiquing cementation using Barrack grading and Gruen and Charnely zones. Pre-operative CT long leg alignment analyses have shown me that abnormal femoral neck version in respect to the knee and foot can be addressed with patient specific implant construction. I gained experience in how they are also implanted with custom rasps.

I furthered my knowledge in Perthes treatment algorithms in addressing acetabular and femoral abnormalities, hip abductor tendinopathy and surgical repair of tears using anchor systems and option of Gluteus Maximus tendon transfer.

Knowledge was also furthered in understanding of septic arthritis effects on young adult hip sequalae of articular destruction, need for trochanteric osteotomy distalisation to aid hip



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abductor lever arm, importance of consideration of varus femoral neck osteotomy and consequent leg length discrepancy.

The clinic environment allowed discussions regarding surgical experience of the host and how to best tackle simple hip arthroplasty cases to pelvic reconstructions with Ganz Peri-Acetabular Osteotomies, issues with metal-on metal hip replacement eccentric articulations, metalosis and osteolysis and issues regarding decreased offset head version and revision hip replacement surgery using impaction femoral grafting.

From a procedural aspect, I was able to gain a better understanding of the steps required to perform hip arthroscopy and anterior hip replacements, specifically techniques to avoid neurovascular injury, appropriate positioning of instruments and prostheses. The importance of being consistent in the manner of performing the surgical procedures performed became clear in that it does best in avoiding complications and ensures consistent results by ensuring best practice.

6. New knowledge and skills that I can implement in my own practice

The experience has provided me with skills in managing patients requiring hip replacements in general, pre-planning appreciating anatomical differences in femoral canals, offset, version and acetabular wall deficiencies, alignment and protrusion. More specifically I have understood when to consider investigating whether patient-specific implants are necessary, utilising CT with 3D reconstruction to evaluate. I have gained further understanding on pincer and cam impingement, utilising Xrays and CT scans to assess such lesions and associated clinical signs including lack of flexion, internal rotation and adduction. In terms of new procedural knowledge I have gained further insight in techniques to refine approaches in performing anterior hip replacements. I now have a better understanding in pre-operative templating, assessing abnormalities in directing surgical positioning and sizing of implants and utilising availability of long leg CT imaging to evaluate femoral neck and acetabular version. I have gained knowledge regarding timing when to use custom implants and the advantages in use relating to anatomical variations in avoiding femoral neck fracture, varus implant positioning and intra-operative exposure and reaming difficulties. I have also gained new knowledge in planning and performing hip arthroscopy, of which I previously had limited knowledge.

7. Overall reflective statement over how the fellowship contributed to my professional development

The fellowship has given me insight into how other health systems work, their advantages and disadvantages. It has allowed me to develop friendships with the host and his colleagues in Switzerland and Greece which will provide me with possibilities in improving my clinical knowledge. In the future it will also provide an ability to discuss best investigative and treatment options with specialists for future cases. It has also enabled me to develop future research collaborations. During my fellowship I was also able to improve my French language skills.

8. What are your future plans?



I aim to specialise in Orthopaedic lower limb sports and arthroplasty surgery. The experience has provided me with important and useful skills which I would not have gained without having had the opportunity of undertaking this great fellowship. I specifically plan to use the skills gained in anterior hip arthroplasty and arthroscopy surgery. I am very happy to have had this opportunity which has provided me with many new clinical skills and improved knowledge. I would like to sincerely thank Dr Christofopolous, his team and colleagues and EFORT for providing me with this fellowship opportunity.