The 41st Annual Percivall Pott Scientific Meeting and Dinner

15 November 2013

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Professor Gordon Blunn

Prof Gordon Blunn heads the Centre for Bio-Medical Engineering at UCL. In addition to being Professor in the Institute of Orthopaedics and Musculoskeletal Science (IOMS) where he has secured in excess of £3.6 million in funding over the last 5 years, he is Chief Scientific Officer at Stanmore Implants Worldwide Ltd. He has long experience in orthopaedic medical devices, materials and musculo-skeletal tissues. Gordon has led many successful research projects funded by government bodies and orthopaedic companies and while he is an academic, he has translated a number of research ideas into clinical practice and the Centre has been involved in a number of successful spin out companies.

Mr Paul Allen

Mr. Allen qualified from St Bartholomew’s Hospital in 1980. He did his surgical training on the University College Hospital Rotation, The Royal London Hospital and his Senior Registrar training on the Percival Pott Programme, which included time at St Bartholomew’s Hospital, Great Ormond Street, The Norfolk and Norwich Hospital and The Royal National Orthopaedic Hospital. He did a joint replacement fellowship in the United States and a trauma fellowship in Hannover, Germany. Mr. Allen was appointed to the Princess Alexandra Hospital in 1993. He has been the lead clinician for many years and has been involved in the expansion of the department and the provision of a specialist joint replacement unit and a hip fracture unit.

Mr Allen has a special interest in knee surgery, including arthroscopic surgery, ligament reconstruction, as well as joint replacement and revision joint replacement. He is involved in several research projects and runs a national knee replacement training course in Harlow.

In 2010 a Daily Mail survey of knee surgeons recognised Mr Allen as one of the top 10 knee surgeon in the UK.
Dr Ronald van Heerwaarden

Dr Ronald van Heerwaarden is head of the Limb Reconstruction Centre in the Netherlands and the Limb Deformity Reconstruction Units of the Sint Maartenskliniek, The Netherlands. He is a member of the AO Knee expert group which is responsible for development of new osteotomy techniques, osteotomy instruments (e.g. sawguides) and the TomoFix plates. He has performed research projects on conservative treatments of monocompartmental OA and surgical treatments with osteotomies.

In recent years he was a co-editor with Rene Marti on the book “Osteotomies for Post-traumatic Deformities” and a co-editor of the book Osteotomies around the knee together with Philipp Lobenhoffer, Alex Staubli and Roland Jakob as well as a co-author for a German book on osteotomies around the knee which will be updated this year. For these books he produced 17 chapters and 9 case presentations. He was a co-editor of the KSSTA January 2013 special issue on Osteotomies around the Knee. Starting from 2004 he has authored or co-authored more than 30 articles on deformity analysis and osteotomies around the knees. He has been an invited speaker at osteotomy meetings all over the world.

Professor Jeremy Fairbank

Professor Fairbank studied medicine at Cambridge University, followed by St Thomas's Hospital in London. As a senior registrar he trained on the Percivall Pott Programme. He created a research department in epidemiology at Birmingham University before being appointed to Oxford. His present research assesses the effectiveness of different treatments for degenerative diseases of the spine.

Professor Fairbank co-ordinates a multi-centre national research study, sponsored by the Medical Research Council, to assess the effectiveness of surgical stabilisation of the spine. He is also involved in studying the structure and function of the intervertebral disc. The work combines clinical and laboratory projects funded from a variety of sources which are mainly related to understanding the processes underlying back pain and scoliosis. A database of families with idiopathic scoliosis is being collected to identify the gene or genes underlying this condition.
Dr Peter Millett

Dr Peter Millett is an orthopaedic surgeon and partner at the internationally renowned Steadman Clinic in Vail, Colorado. Dr Millett specializes in disorders of the shoulder, knee, and elbow as well as all sports-related injuries. His focuses include advanced shoulder arthroscopy, arthroscopic stabilization surgery and the treatment of athletes with shoulder injuries. He also has expertise in complex and revision shoulder surgery and total joint replacement.

Dr Millett received his undergraduate degree from the University of Scranton, Pennsylvania and his medical degree from Dartmouth Medical School in Hanover, New Hampshire. He also studied as a research scholar at the University of Cambridge in England, where he was awarded a master's degree in science (M.Sc.) for his work in skeletal biology.

Dr Millett also serves as a shoulder and sports medicine consultant to the country of Bermuda and has treated elite athletes from the NFL, NBA, MLB, NHL, X-Games, and the Olympics. Dr Millett is also affiliated with the United States Ski and Snowboard Association and has served as a team physician for the U.S. Ski Team and as a consultant to the Montreal Canadians', professional hockey club.

Mr Keith Tucker

Mr Tucker began his orthopaedic training in 1973 as a senior registrar progressing through St Bartholomew's Hospital, Princess Alexander Hospital, Harlow, the Norfolk & Norwich Hospital, Royal National Orthopaedic Hospital (Stanmore) and Great Ormond Street Hospital for Sick Children, before embarking on a travelling fellowship in North America and Canada. He has been a consultant for 30 years in Norwich with a large experience of general orthopaedics. There can be few orthopaedic problems that he has not dealt with over the years and nowadays his practice focuses on lower limb orthopaedics, including feet, with a special expertise on disease of the hip. He was president of the British Hip Society 2007-08. He is a member of the National Joint registry Steering Committee. He is the Chairman of the ODEP Advisory Group.
Mr Martin Bircher

Mr Bircher's main areas of special interest include hip replacement surgery, lower limb arthroplasty, ACL reconstruction, arthroscopic knee surgery (sports injuries), and forefoot surgery. His particular interest is pelvic and acetabular surgery and he spent a year on a Fellowship at Sunnybrook Medical Centre, Toronto with Professor Tile and Dr Schatzker where this interest developed. He brought his expertise back to the UK and established one of the first units at Epsom which then transferred in 1992 to St George’s where he heads up the Pelvic and Acetabular Trauma Unit. Mr Bircher also co-ordinates the pelvic and acetabular education programme in the UK and has run courses since 1999.

Mr Bircher holds the position of Programme Director for the South West Thames Orthopaedic Training Scheme. He has been on the Council of the British Orthopaedic Surgeons and is at present council member of the Royal College of Surgeons with a special portfolio dealing with medical education and is on the independent review committee.

Mr Tim Theologis

Mr Theologis obtained his degree in Medicine and Surgery of the University of Athens in 1985. He completed his basic surgical training in Oxford and higher surgical training in Trauma and Orthopaedic Surgery within the Oxford Postgraduate Training Programme based at the Nuffield Orthopaedic Centre. After completing his training in 1995 he was appointed for a year at the Hospital for Sick Children, Toronto, Canada, where he obtained his Fellowship in Paediatric Orthopaedics. He then returned to Oxford and was appointed Consultant Orthopaedic Surgeon in 1996.

Mr Theologis obtained an MSc degree of the University of Oxford and a PhD from the University of Athens, both on research in the field of spinal deformities. He has published several articles and book chapters in subjects relevant to trauma and orthopaedics. He maintains a regular involvement in research, being the holder of several major grants and supervising PhD students for the University of Oxford. He runs one of the busiest multi-disciplinary cerebral palsy services nationwide and is an expert in the field of gait analysis. He is Lead Clinician for paediatric orthopaedic oncology at the Nuffield Orthopaedic Centre.
Professor Reinhold Ganz

Professor Emeritus at the University of Bern, Switzerland, Ganz performed the first periacetabular osteotomy in 1984. The work of Professor Reinhold Ganz has opened a new era of knowledge, understanding and treatment of hip disease. As a Chair of the Department of Orthopaedics of the University of Berne he has fostered academic orthopaedic excellence and educated a generation of orthopaedic surgeons. As a Consultant at the Department of Orthopaedics of the University of Zurich from 2004 to 2007 he has served as a role model in analysing and treating orthopaedic problems and substantially contributed to the development of the Department. In 2012 he was president of the International Hip society.
There has always been some debate about who should be regarded as the first trainee. This comes about because when the rotation began the existing holders of the posts that were being incorporated had to be included. In order to provide a vacancy at Norwich for a trainee Chang Chen was incorporated into the rotation because he was already working at Norwich. Bernard Meggitt likewise was also in Norwich in 1969. Similarly, in order to incorporate the RNOH we had to incorporate into the rotation somebody working at the RNOH, and that was David Dandy. Howard Smith was occupying one of the Barts Registrar posts and so he was easily incorporated although was re-interviewed to comply with the regulations by a Senior Registrar Appointments Committee when he was formally upgraded.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08:00</td>
<td>Registration and Coffee in Great Hall</td>
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<tr>
<td>08:30</td>
<td>Introduction</td>
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<tr>
<td>08:45</td>
<td>&quot;Taper wear analysis&quot;&lt;br&gt;Prof Gordon Blunn, UCL</td>
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<tr>
<td>09:20</td>
<td>&quot;20 Years of Total Knee Surgery&quot;&lt;br&gt;Mr Paul Allen, Princess Alexandra Hospital, Harlow</td>
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<td>10:00</td>
<td>COFFEE</td>
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<td>&quot;New Developments in Osteotomies about the knee”&lt;br&gt;Dr Ronald van Heerwaarden, Sint Maartenskliniek, The Netherlands</td>
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<td>11:15</td>
<td>&quot;The Management of Rotator Cuff Injuries&quot;&lt;br&gt;Dr Peter Millett, The Steadman Clinic, Colorado</td>
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<td>12:00</td>
<td>Does discharge range of motion matter after total and unicompartmental knee replacement in an enhanced recovery setting?&lt;br&gt;Aresti N, Akhtar K, Houlihan-Burne D.</td>
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<td>12:10</td>
<td>Prognostic factors in the operative management of sacral chordomas&lt;br&gt;B Kayani, SA Hanna, WJS Aston, RC Pollock, JA Skinner, SR Cannon, A Saifuddin, TWR Briggs</td>
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<td>12:30</td>
<td>The Introduction Of A Multidisciplinary Hip Fracture Pathway To Optimise Patient Care And Reduce Mortality: A Prospective Audit Of 161 Patients&lt;br&gt;Silk Z, Shenouda M, Radha S, Bouanem E, Radford W</td>
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<td>12:40</td>
<td>Reverse Ponseti-type method for congenital vertical talus: comparison between idiopathict and teratologic patients&lt;br&gt;J Wright, D Coggings, C Maizen, M Ramachandran</td>
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<td>LUNCH</td>
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<td>13:50</td>
<td>A generalised linear model to predict outcome following autologous chondrocyte implantation for osteochondral defects of the knee.&lt;br&gt;Jaiswal PK, Morris T, Carrington RWJ, Skinner JA, Briggs TWR, Bentley G</td>
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<td>14:00</td>
<td>A National Survey of the Management of Suspected Scaphoid Fractures in England&lt;br&gt;Fleming S, Ingleton R, Halsey T</td>
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<td>14:50</td>
<td>“Beyond Compliance: The Whys and Whens”</td>
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<td>&quot;Four decades of Pelvic and Acetabular Surgery – a UK Perspective”</td>
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<td>COFFEE</td>
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<tr>
<td>16:20</td>
<td>&quot;Spring time for Back Pain&quot;</td>
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<td>16:55</td>
<td>&quot;The Use of Gait Analysis for Multi-Level Surgery in Cerebral Palsy&quot;</td>
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<td>17:30</td>
<td>Hugh Phillips Memorial Lecture</td>
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<td>&quot;Intracapsular osteotomies of the Hip&quot;</td>
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<td>18:10</td>
<td>President’s Address</td>
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<td>&quot;A Surgical Century”</td>
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<td>Trainer of The Year Award</td>
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<td>Best Registrar Presentation Award</td>
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<td>Best Paper by a Pott Trainee 2013</td>
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<td>Sponsors’ Quiz Prize</td>
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<td>Close of Scientific Meeting &amp; Thanks</td>
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<td>19:00</td>
<td>Annual General Meeting</td>
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<td>Henry VIII Committee Room</td>
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<td>20:00</td>
<td>Drinks reception with dinner to follow</td>
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Does discharge range of motion matter after total and unicompartmental knee replacement in an enhanced recovery setting?

Aresti N, Akhtar K, Houlihan-Burne D.

Introduction

A minimum flexion to 90° has been traditionally used as a discharge criterion following both total knee replacement (TKR) and unicompartmental knee replacement (UKA). Given issues such as funding and bed capacity, we set out to establish whether there is a correlation between knee ROM at discharge and at 6 week follow up for patients undergoing TKR and UKA within an enhanced recovery programme (ERP).

Methods

126 consecutive patients were followed prospectively. Extension and flexion were recorded at initial pre-operative assessment, at discharge, and at their 6 week follow up.

Results

81 TKRs were performed (25 male and 56 female; mean age 71.9) and 45 UKAs (18 male, 27 female; mean age 66.6). TKR: 82% improvement in extension (4.44° v 0.80°; p<0.0001) and 33% improvement in flexion (79.32° v 105.19°; p<0.0001). UKA: 82% improvement in extension (6.36° v 1.14°; p<0.0001) and 34% improvement in flexion (83.73° v 111.82°; p<0.0001).

79 patients (62.70%) had a range of knee flexion less than 90° at discharge. Of this group, only 2 TKR patients (1.59%) had less than 90° flexion at 6 weeks following surgery.

Conclusions

There are significant improvements seen in both flexion and extension between the time of discharge and at 6 weeks, with no difference between TKR and UKA. The 2 delayed patients had pre-operative flexion of less than 90°.

Range of knee motion at discharge does not predict the range of motion at 6 weeks following surgery within an ERP and can be safely ignored as a discharge criterion.
Prognostic factors in the operative management of sacral chordomas

B Kayani, SA Hanna, WJS Aston, RC Pollock, JA Skinner, SR Cannon, A Saifuddin, TWR Briggs

Abstract:

Sacrectomy is the treatment of choice for sacral chordomas but is associated with high risk of disease recurrence and metastases. The purpose of this study was to identify surgical prognostic factors associated with poor oncological outcomes. The results of fifty-eight patients undergoing sacrectomy for primary sacral chordoma at our supra-regional referral centre were retrospectively reviewed. The mean age of the patients was 63 years (range, 41-80) and average follow up time was 45.3 months (range, 2-144 months). The five-year survival and ten-year survival rates were 62% (95% CI [46% to 75%]) and 26% (95% CI [11% to 45%]) respectively. The most important predictor of disease recurrence was adequacy of resection margins (p<0.01). Risk of metastases significantly increased in patients with inadequate resection margins (p<0.01) and tumour diameter greater than 8cm (p<0.01). The presence of dedifferentiated disease was associated with increased risk of disease recurrence and reduced survival. Tumour infiltration into the sacroiliac joints, marginal/intralesional resection margins and large tumour size were associated with reduced long-term survival (p<0.01). Surgical approach, more cephalad tumour extension and adjuvant radiotherapy did not significantly improve oncological outcomes. Patients with tumours greater than 8cm in diameter, sacroiliac joint infiltration, and inadequate resection margins are associated with poor oncological outcomes following sacrectomy. Patients with these aforementioned risk factors should undergo regular life-long follow-up for early detection and treatment of recurrent disease.
Total Distal Radioulnar Joint Arthroplasty: A Multicenter Long-term Outcome Study


Introduction:

Distal radioulnar joint (DRUJ) arthrosis and instability can cause disabling pain, reduction of grip strength, and limited forearm rotation. Resection arthroplasty, which eliminates the DRUJ contact surface, and various stabilizing soft-tissue procedures, often provide satisfactory results. However, some patients develop symptomatic radioulnar impingement or instability of the residual ulnar stump, a challenging problem often refractory to surgical intervention. Biomechanical studies have shown the importance of the ulnar head in DRUJ stability and the constrained total DRUJ replacement was developed as an alternative for the failed resection arthroplasty. The short-term clinical outcomes with this implant have been positive, however long-term outcomes and implant longevity remain unknown. This multicenter study evaluates the long-term outcomes of a single-design semi-constrained total DRUJ replacement.

Methods

A total of 54 patients who underwent total DRUJ replacement, with minimum 5-year follow-up, were evaluated for the clinical outcomes by visual analog pain score (VAS), grip strength, range of motion, the disabilities of the arm, shoulder, and hand (DASH) questionnaire, and patient satisfaction. Complications and postoperative radiographs were reviewed.

Results

There were 25 male and 29 female patients followed for an average of 75 months. Average age at arthroplasty was 50 (range, 18 - 85) years. Five patients had bilateral prosthesis replacements. Sixty-three percent of patients had at least one previous procedure for DRUJ problems. Average VAS significantly decreased from 8.6 ± 1.5 to 2.0 ± 2.6. Average range of motion also improved: pronation from 64° to 79° and supination from 53° to 71°. Complications occurred in 10 cases (16.9%): 4 cases of extensor carpi ulnaris tenosynovitis, 2 of ectopic bone at the distal ulna, 1 carpal impingement, 1 prominent screw, 1 polyethylene cover loosening and 1 implant loosening.

Discussion

The total DRUJ replacement is an effective treatment, especially in patients with debilitating DRUJ pathology that has failed multiple previous surgeries. Our study shows long-term improvements in pain and functionality. The complications that mostly occurred in the early cases, extensor carpi ulnaris tenosynovitis and ectopic bone at the distal ulna, were subsequently corrected by modification of surgical techniques. Two cases (3.7%) underwent prosthesis revision in the first 5-years due to the component loosening.
The Introduction Of A Multidisciplinary Hip Fracture Pathway To Optimise Patient Care And Reduce Mortality: A Prospective Audit Of 161 Patients

Silk Z, Shenouda M, Radha S, Bouanem E, Radford W

Abstract:

Hip fractures are already a major cause of morbidity and mortality in the elderly. The current lifetime risk of sustaining a hip fracture at 50 years of age is 17.5% amongst females and 6% amongst males. Concerning to many, the annual incidence worldwide is expected to reach 6.26 million by 2050. At one year, mortality rates after hip fracture can be as high as 33%, with approximately 50% of patients unable to maintain their pre-morbid level of independence.

As a result, guidelines developed by the National Institute for Health and Clinical Excellence (NICE), British Orthopaedic Association (BOA) and British Geriatric Society (BGS) recommend early orthogeriatric assessment, prompt medical optimisation and surgery on the day of, or day after, admission. On the back of Lord Darzi’s Next Stage Review, High Quality Care for All, these clinical standards were financially incentivised with the introduction of a Best Practice Tariff (BPT) in April 2010. To achieve the BPT, the collection and submission of data to the UK’s National Hip Fracture Database (NHFD) became mandatory, which has allowed it to effectively become one of the largest prospective clinical audits taking place in the United Kingdom.

In our institution, a novel multidisciplinary hip fracture pathway was introduced to ensure rapid pre-operative medical optimisation. Amongst other key interventions, the primary admitting consultant was changed from an orthopaedic surgeon to an acute medical physician. The perceived benefit of structuring our pathway in this way was to ensure all necessary investigations and therapeutic interventions could be initiated in a more timely fashion, with the benefit of reducing the likelihood of surgical cancellations. Based on our data, this simple intervention directly led to improvements in our patients’ length of stay, in-patient mortality and level of independence.

As a result, the trust has been able to more effectively increase its compliance with BPT requirements, leading to increased financial reward. Further improvements are still possible, particularly with regards to further reducing time to surgery and achieving 100% pre-operative geriatric assessment.

Until effective secondary prevention strategies are implemented to reduce the incidence of fragility fractures, we must learn to challenge traditional patient pathways to enhance our ability to deal with the increasing burden of disease faced in our hospitals.

We report on our experience and outcomes following this change in practice.
Reverse Ponseti-type method for congenital vertical talus: comparison between idiopathic and teratologic patients

J Wright, D Coggings, C Maizen, M Ramachandran

Barts and the London Children’s Hospital, Barts Health NHS Trust, London, UK.

Congenital vertical talus (CVT) has been historically treated with extensive soft tissue releases with significant associated complications. Recently, reverse Ponseti-type casting followed by percutaneous reduction and fixation has been described with excellent results in separate cohorts of either idiopathic or teratologic cases of CVT. There are currently no studies that compare the outcomes between the two types.

We present a prospective cohort of 13 patients (21 feet) in which this technique has been used in both idiopathic and teratologic associated cases of CVT. Clinical, radiographic and parent-reported outcomes were obtained at a mean follow up of 36 months (range 8-57). Six patients (9 feet) had associated neuromuscular conditions or syndromes; seven patients (12 feet) were idiopathic. Initial correction was achieved in all patients with significant improvement in all radiographic parameters. Recurrence was seen in 10 out of 21 feet. Modification of the technique to include limited capsulotomy at the initial operation may reduce the risk of recurrence.

The reverse Ponseti-type technique is effective in initial correction of both idiopathic and teratologic cases of CVT. Recurrence is a problem in both these groups, with higher rates than first reported in the original paper. However, these rates are less than those reported for open surgical releases.

Level of Evidence: II (Prospective cohort study).
A generalised linear model to predict outcome following autologous chondrocyte implantation for osteochondral defects of the knee.

Jaiswal PK, Morris T, Carrington RWJ, Skinner JA, Briggs TWR, Bentley G

Introduction

The results of Autologous Chondrocyte Implantation (ACI) for the treatment of osteochondral defects (OCD) of the knee are variable. Several papers have only used a linear regression model to identify predictors of outcome. This study utilised a generalised linear model to assess which factors had the greatest effect on outcome, thereby taking into account confounding variables.

Methods

100 patients had undergone ACI in 2 year period. The Modified Cincinnati Score (MCS) was used to assess knee function before, 6, 12 and 24 months after surgery. The predictive factors were aetiology and anatomical site of the OCD. The predictive covariates were the MCS pre-operatively (MCS 0), age of patient and size of lesion.

Results

The significant predictors of outcome were MCS 0 and aetiology. Those patients who had previous marrow stimulating procedures had on average 25 points less than those patients treated for osteochondritis dissecans and 11 points less than patients treated for traumatic reasons (p=0.01). A single point increase in MCS 0 is likely to increase the MCS 24 by 0.5 points (p=0.001). Overall, site was not a significant factor in the model, but when patella lesions were compared directly with lateral femoral condyle or trochlea lesions, there was a significant difference.

Conclusions

This study highlights the importance of conducting a thorough statistical model when analysing predictors of outcome from a surgical procedure. The pre-operative function and aetiology have the greatest effect on outcome and if ACI is being considered in a patient, then marrow stimulating techniques should be avoided.
A National Survey of the Management of Suspected Scaphoid Fractures in England
Fleming S, Ingleton R, Halsey T

Scaphoid fractures are common. However, between 10-15% are not identified on routine X-rays at the time of initial presentation and the consequences of missed fracture can be significant, potentially leading to avascular necrosis, non-union and post traumatic arthritis in a young active population. We built a database of the current management of suspected or confirmed scaphoid fractures in every Acute Hospital Trust in England, with a response rate 75%.

72% A&E departments and 80% Minor Injuries Units used a protocol. 8% of A&E departments used AP and lateral wrist views only while 92% performed a scaphoid series. With imaging, we found statistically significant differences between A&E and MIU practice (p = 0.006). There was a significant difference (p=0.0375) between the use of 5 view scaphoid x-rays and other imaging types. Of the A&E departments with protocols, for confirmed fractures, 58% use a scaphoid cast, 15% use a below elbow backslab and 15% use futura splints (half with, half without thumb extension). With suspected fractures, 49% use a futura splint with thumb extension and 23% use a futura splint without thumb extension, with backslabs and other methods also in use. The majority of hospitals arrange Orthopaedic follow up, most often in less than 7 days.

We found wide variation in early identification, management and follow-up of suspected or confirmed scaphoid injuries. There is significant regional variation between the protocols that exist with regards to imaging and type of immobilisation.

Consideration should be given to producing a simple, validated protocol nationally, to allow standardised and appropriate management of this condition.
Unicompartmental and total knee replacement for osteoarthritis of the knee: a cost-utility analysis using data from three national registries

Andrews B, Mirdalo M, Field R, Cobb J

Cost-effectiveness is an important contributor to the choice of knee arthroplasty, yet contemporary economic analyses of unicompartmental knee arthroplasty (UKA) versus total knee arthroplasty (TKA) are conflicting. Critical to the validity of these studies is the quality of the raw data; thus accurate probabilities, utilities and costs are essential. National registries are the largest data source and also include detailed breakdown information regarding revision subtypes. To date, no cost-effectiveness analyses have combined multiple registry data, national utilities, and revision costing figures. The aim was to conduct the most comprehensive cost-utility analysis for UKA v TKA yet published, combining a separate bottom-up, costing study with data from national registries and, uniquely, comprehensive revision surgery data.

Methods
The study design was a lifetime Markov cost-utility model, including first- and second-revision procedures. Parameters were estimated from three national registries and English PROMs. In the absence of suitable published costing data, a comprehensive bottom-up costing analysis was performed for primary and revision procedures. The main outcome measure was the incremental cost-effectiveness ratio (ICER), and the probability that each strategy is cost-effective at alternative willingness-to-pay thresholds.

Results
UKR is more cost-effective than TKR. For a patient aged 67, lifetime costs are £689 lower for UKR than TKR. By choosing UKR over TKR, a lifetime gain of 0.5 QALYs is made. The incremental cost per QALY for UKR compared with TKR is -£1354. If the threshold willingness to pay for a QALY is set at £20 000, the probability that UKR is cost-effective is 80%. Increasing the willingness to pay does not significantly alter this probability. UKR is the cost-effective option for a patient aged 40 to 90 years old and beyond. The probability of this is 64% at 40, rising to 84% at 70 years, and 100% at 90 years old. As the time horizon is reduced down to 1 year, UKR continues to dominate TKR. Even when TKR implants are supplied free of charge, UKR remains the cost-effective strategy. The costing analysis, which provided parameters for the main analysis, determined that primary UKR costs £1663 less than primary TKR: £5655 vs. £7318. First revision UKR costs slightly more than first revision TKR: £9509 vs. £9400. Second revision UKR costs £9413 compared to £10051 for second revision TKR.

Conclusions
UKR is the cheaper primary procedure and is the cost-effective arthroplasty strategy for knee osteoarthritis despite its higher revision rate. For surgeons whose patients’ quality-of-life is the primary concern, UKR is the better choice. Hospitals, by encouraging UKR, could benefit from tariffs that offer equivalent remuneration for a procedure which is £1663 cheaper. Clinical Care Groups might consider purchasing healthcare from a provider who offers UKR. In the interests of improving national healthcare efficiency, we recommend that UKR should be promoted as the knee arthroplasty of choice when surgically indicated. If UKR is performed for all patients who are suitable, then an NHS cost saving of £21.5million could be realised over the lifetime of every annual cohort. Immediate annual savings of over £50million would be realised.
Title: Vitamin D deficiency in patients with Adolescent Idiopathic Scoliosis (AIS): a cause for concern?


Aim/Introduction:

Vitamin D deficiency is a common problem in the UK. It is more prevalent in patients with orthopaedic conditions. Previous studies in the literature have shown that vitamin D deficiency is associated with low patient-related outcome scores. To date, no studies have been performed in spinal patients. The aim of this study was to investigate whether there is a relationship between vitamin D status and pre-operative outcome scores in patients with AIS.

Methods:

AIS patients undergoing scoliosis correction between July 2012 and May 2013 at the Royal National Orthopaedic Hospital were investigated. Serum 25-hydroxyvitamin D levels was measured and SRS-22r questionnaires were completed as part of their pre-admission work up. All deficient patients were supplemented. SRS-22r questionnaires were repeated at three and six months.

Results:

Forty patients were enrolled into the study. Of these 28 patients (70%) had inadequate vitamin D levels. There was a significant correlation between the vitamin D level and SRS-22r scores (Spearman’s 0.397, p=0.049; Pearson’s 0.416, p=0.039). Those with severe Vitamin D deficiency had the worst SRS-22r scores (p=0.010). Post-operative scores following Vitamin D supplementation showed no difference in SRS-22r scores.

Discussion:

Vitamin D insufficiency is associated with worse pre-operative outcome scores in the AIS population. We are currently collecting post-operative outcome scores to look at the effect of Vitamin D supplementation. This is going to form the framework for a future prospective cohort trial.

M.S. Rashid*, U. Butt, A. Birch, S. Crank, D.E. Temperley, A.J. Freemont, I.A. Trail.Wrightington Hospital, Hall Lane, Appley Bridge, Wigan, Lancashire WN6 9EP.

Rotator cuff tears are amongst the most frequently encountered causes of pain and dysfunction in the shoulder, particularly in the elderly where a prevalence of up to 80% is reported. Rotator cuff tears and the degree of fatty infiltration can be investigated using magnetic resonance imaging (MRI). Studies have suggested using the occupation ratio of Supraspinatus as an indirect surrogate for the degree of fatty infiltration, stating that the degree of muscle atrophy is correlated with relative accuracy. Human studies looking at the histology associated with cuff tears are few with none comparing the features before and after cuff repair.

Our aim was to accurately determine whether muscle atrophy and fatty infiltration are reversible following cuff repair. Patients with a repairable cuff tear were recruited and assessed clinically and radiologically with magnetic resonance imaging (MRI). At surgery, supraspinatus was biopsied. Post-operatively, patients underwent clinical evaluation at standardised intervals, with further MRI and an ultrasound guided biopsy of supraspinatus at 12 months. MRI was used to characterize cuff-tears and determine the degree of muscle atrophy and fatty infiltration. Biopsy samples were fixed on-site and transported for processing. Morphometric assessments of myofibres were made and mean cross-sectional areas calculated using validated techniques. The pathologist was blinded to sample details. Statistical analysis was performed to assess differences in mean myofibre area following cuff repair and correlated with radiological findings.

Eight patients were available for completed histological and radiological analysis. Six (two re-tears) demonstrated sizeable and highly statistically significant improvements in mean myofibre cross-sectional area (P=0.000-0.0253). Of the two not showing any increase in myofibre area, neither result was statistically significant (P=0.06, 0.2); one was a re-tear and one was a repair of a partial-thickness tear. Radiologically, the muscle and fatty changes had not demonstrably changed.

Our finding that myofibre cross-sectional area increases following cuff repair suggests muscle atrophy is a potentially reversible process. Even with re-tears, improvements were seen. MRI features of fatty infiltration and muscle atrophy were not seen to improve however. It is likely that radiological assessment is not sensitive enough to demonstrate the reversibility of muscle atrophy seen on histological analysis at one year.
37th ANNUAL GENERAL MEETING (21.11.09)

President: Mr David Dandy
Programme Director: Mr Sean Curry
Secretary: Mr Niel Kang
Treasurer: Mr Aria Ghassemi
BOTA Representative: Mr Philip Mathew

Apologies for absence

1. Minutes of the 2008 AGM
2. Current Trainees
3. News:
   Appointments
   Mr Mike Oddy (UCLH), Mr Najab Ellahee (Epsom & St Heliers), Mr Karl Logan (Halifax, Nova Scotia)
   Deaths
   Mr Howard Smith (Pott trainee & ex-President Pott club 1998-99), Mr Robin Campbell-Connolly (ex-President Pott club 1985-86)
   Other
   Congratulations to Nana Osei, Livio Di Mascio and Danyal Nawabi on their recent successes in the FRCS (Tr & Orth) exam.
   Steve Copeland re-elected President of the International Board Shoulder and Elbow surgeons (IBSES) for a further period of office to 2010.
4. Reports:
Programme Director: Mr Sean Curry
Secretary: Mr Livio Di Mascio
Treasurer: Mr Aria Ghassemi
5. Elections of Officers of the Club for 2009/10
President: Mr Jonathan Wilkinson
Secretary: Mr Hanny Anwar
Treasurer: Mr Arj (Venkatesh) Balaji
BOTA rep: Mr Dennis Kosuge
6. 2010 Meeting
November 19th
7. Other Business
   RITAs/ARCP uncoupled from the Pott scientific meeting
   UKITE exam venue December 2009 to be arranged by Mr Curry
   Pott summer assessment to be hosted at Princess Alexandra Hospital June 2010
38th ANNUAL GENERAL MEETING (20.11.10)

President: Mr Jonathan Wilkinson
Programme Director: Mr Sean Curry
Secretary: Mr Hanny Anwar
Treasurer: Mr Arj (Venkatesh) Balaji
BOTA Representative: Mr Dennis Kosuge

Apologies for absence

1. Minutes of the 2009 AGM
2. Current Trainees
   Phil Mathew, Eric Yeung, Amit Amin, Livio Di Mascio, Niel Kang, Danyal Nawabi, Nana Akoto Osei, Barry Andrews, James Reidy, Homa Arshad, Aria Ghassemi, Hanny Anwar, Tarun Taneja, Saket Tibrewal, Dennis Kosuge, Arul Ramasamy, (Venkatesh) Arj Balaji, Markus Baker, Prakash Jayakumar, Anna Bridgens,

New ST3 Appointees:
Congratulations to Daud Tai Shan Chou.

3. News:
   FRCS(Orth)
   Congratulations to Neil Kang, Barry Andrews, and Aria Ghassemi on their recent successes in the FRCS (Tr & Orth) exam.

4. Reports:
   Programme Director: Mr Sean Curry
   Secretary: Mr Hanny Anwar
   Treasurer: Mr Arj Balaji
   Bota Rep: Mr Dennis Kosuge

5. Elections of Officers of the Club for 2010/11
   President: Mr Thomas Bucknill
   Secretary: Mr Ioannis Pengas
   Treasurer: Mr Arj Balaji
   BOTA rep: Ms Anna Bridgens

6. 2011 Meeting 11th November 2011
7. Other Business Website
   Pott committee

Notes: Pott summer assessment to be hosted at Norfolk & Norwich University Hospital June 2011 Website – Mr Hanny Anwar
39th ANNUAL GENERAL MEETING (11.11.11)

President: Mr Thomas Bucknill
Programme Director: Mr Prim Achan
Secretary: Mr Ioannis Pengas
Treasurer: Mr Arj (Venkatesh) Balaji
BOTA Representative: Ms Anna Bridgens

Apologies for absence

1. Minutes of the 2010 AGM

2. Current Trainees

New Appointees:
Congratulations to: Anna Peek, Steve Kahane, Alex Mulligan, Moataz El- Hussein.

3. News:
Congratulations to: Amit Amin – Consultant post at St George’s Hospital
Nana Akoto Osei- Consultant post at Luton.

FRCS(Orth)
Congratulations to: Hanny Anwar, Homa Arshad, Dennis Kosuge & Saket Tibrewal on their recent successes in the FRCS (Tr & Orth) exam.

4. Reports:
Programme Director: Mr Prim Achan
Secretary: Mr Ioannis Pengas
Treasurer: Mr Arj Balaji
Bota Rep: Ms Anna Bridgens

5. Elections of Officers of the Club for 2011/12
President: Mr Nairn
Secretary: Mr Baker
Treasurer:
BOTA rep:

6. 2012 Meeting

7. Other Business
Website
Pott committee

Notes:
Annual P. Pott exam –
Website –
40th Annual General Meeting (09.11.12)

President             Mr David Nairn
Programme Director    Mr Prim Achan
Secretary             Mr Markus Baker
Treasurer             Mr Daud Tai Shan Chou
BOTA representative:  Mr Anna Bridgens

Agenda
Apologies for Absence
1. Minutes of the 2011 AGM
2. Current Trainees
Aria Ghassemi, Danyal Nawabi, James Reidy, Barry Andrews, Homa Arshad, Saket Tibrewal, Denis Kosuge, Tarun Taneja, Arj Balaji, Hanny Anwar, Arul Ramasamy, Markus Baker, Prakash Jayakumar, Anna Bridgens, David Mckenna, Ioannis Pengas, Daud Tai Shan Chou, Anna Peek, Steve Kahane, Alex Mulligan, Moataz El- Husseiny, Nick Aresti, Lucky Jeyaseelan, Jonathan Wright, Dan Williams
New Appointees
Congratulations to: Nick Aresti, Lucky Jeyaseelan, Jonathan Wright, Dan Williams
3  News:
Congratulations to  Niel Kang Consultant post at Bury St Edmunds
Livio Di Mascio Consultant post at Royal London
Aria Ghassemi Consultant post at University College Hospital
FRCS (Tr&Orth)
Congratulations to Arj Balaji, Tarun Taneja on their recent success in the FRCS (Tr&Orth) exam
4. Reports
Programme Director: Mr Prim Achan
Secretary Mr Markus Baker
Treasurer: Mr Daud Tai Shan Chou
BOTA Rep: Ms Anna Bridgens
5. Elections of Officers of the Club for 2012/13
President: Mr M Rowntree
Secretary: Mr D McKenna
Treasurer: Mr D Tai Shan Chou
BOTA Rep: Mr S Kahane
Website: Mr A Mulligan
6 2013 Meeting set for 15th November
7 Other Business Difficulty securing Robin Brooke Centre – elected to use Great Hall instead
Difficulty getting sponsors - did not get enough interest from delegates last year
New Prize proposed- Best Paper Authored by a Pott Trainee
Percivall Pott, F.R.S.
[1714-88]
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