SCIENTIFIC PROGRAM

SA/NT Branch Scientific Papers Day

16 February 2024

SAHMRI, Adelaide

AUSTRALIAN ORTHOPAEDIC ASSOCIATION

12:45pm	REGISTRATION AND LUNCH	
SESSION 1		
TIME	**TITLE**	**PRESENTER**
1:25PM	WELCOME TO SCIENTIFIC MEETING & SESSION 1	**JAI RAWAT**
1:30PM	RETURN TO SPORTS AND PHYSICAL ACTIVITIES AFTER INSERTIONAL ACHILLLES TENDINOSIS SURGERY	**FRANCISCO CASTILLO**
1:40PM	EFFECTIVENESS OF SUTURE BUTTON VERSUS SCREW FIXATION FOR THE MANAGEMENT OF ACUTE SYNDESMOTIC INJURIES: A SYSTEMATIC REVIEW AND META-ANALYSIS	**MATTHEW CEHIC** SERVICE REGISTRAR
1:50PM	NEW PERSPECTIVE FROM OLD DATA: A CONTEMPORARY, QUANTITATIVE ANALYSIS OF THE FIRST REPORTED CERVICAL FACET DISLOCATION PRODUCED IN THE LABORATORY	**RYAN QUARRINGTON**
2.00PM	OSTEOLYSIS IN TELESCOPIC INTRAMEDULLARY NAIL USED FOR OSTEOGENSIS IMPERFECTA	**DAVID NGO** SERVICE REGISTRAR
2:10PM	SURGICAL UNITS MORTALITY AND MORBIDITY MEETINGS – CAN WE DO BETTER?	**ELI AWWAD**
2:20PM	A LONGITUDINAL RETROSPECTIVE COHORT STUDY COMPARING OUTCOMES FOLLOWING HIP FRACTURES IN AUSTRALIAN FIRST NATION PATIENTS WITH NON-AUSTRALIAN FIRST NATION PATIENTS	**TIM CHEOK**
2:30PM	DEROTATIONAL PLATE AUGMENTATION WITH RETENTION OF INTRAMEDULLARY INTERLOCKING NAIL IN RESISTANT NONUNION AT DISTAL FEMUR SHAFT	**WAQAS AHMAD** SENIOR REGISTRAR
2:40PM	QUESTION TIME & CLOSE OF SESSION 1	
2:45PM	SPONSOR TALKS	
2:50PM	**AFTERNOON BREAK**	
SESSION 2		
TIME	**TITLE**	**PRESENTER**
3:20PM	WELCOME TO & SESSION 2	**TOM GIEROBA**
3:25PM	BREAKING THE SILENCE: UNDERSTANDING DOMESTIC VIOLENCE AND FOREARM FRACTURES IN INDIGENOUS COMMUNITIES	**CASEY KNIGHT** SERVICE REGISTRAR
3:35PM	LONG-TERM FOLLOW-UP SHOWS COMPARABLE OUTCOMES FOR EARLY CONVERSION TO A BELOW-ELBOW CAST COMPARED TO ONLY AN AEC FOR PEDIATRIC REDUCED DIAPHYSEAL BOTH-BONE FOREARM FRACTURES	**LINDE MUSTERS BEIJE RAMIREZ**
3:45PM	QUANTITATIVE ANALYSIS OF GRADE 5/6 SCAPHO-LUNATE INJURY PATTERN BY APPLYING COMPUTATIONAL ISOMETRIC ANALYSIS TO THE DISRUPTED AND VIRTUALLY REDUCED CARPUS.	**ZORRO CHENG**
3:55PM	MANAGEMENT OF TRAUMATIC NERVE PALSIES IN PEDIATRIC SUPRACODYLAR HUMERUS FRACTURES: A SYSTEMATIC REVIEW	**MAYA TODD** SERVICE REGISTRAR
4:05PM	A SNAPSHOT OF FEMALE REPRESENTATION IN THE PRESENTATION OF ORTHOPAEDIC RESEARCH, AN AUSTRALIAN PERSPECTIVE	**KAROLINE KANT**
4:15PM	TOTAL HIP ARTHROPLASTY, VIA DIRECT ANTERIOR APPROACH, AFTER CONTRALATERAL PROXIMAL FEMUR AMPUTATION: A CASE REPORT	**JOSEPH FEMIA** SERVICE REGISTRAR
4:25PM	GAP NON-UNION MANAGED IN RADIUS AND ULNA BY NON-VASCULARIZED FIBULA GRAFT IN ADULTS	**WAQAS AHMAD** SENIOR REGISTRAR
4:35PM	CLOSE OF MEETING	
4.40pm	**GENERAL MEETING – MEMBERS ONLY**	

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Return to sport and physical activities after insertional Achilles tendinosis surgery

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Prince of Wales Hospital, Sydney, NSW; Orthosports Clinic, Sydney, NSW

Introduction: Insertional Achilles tendinosis (IAT) is a degenerative disease of the insertion of the Achilles tendon associated with calcific degeneration, retrocalcaneal bursitis, and a prominent posterosuperior tubercle (Haglund's deformity). When non-operative treatment fails, surgical reconstruction can be recommended. Patients with IAT are often active individuals with expectations of returning to sport and an active lifestyle, and the current literature does not provide answers on the long-term outcomes post surgery, specifically pertaining to performance and return to sport. The present study intends to assess the sporting performance of patients after IAT surgery.

Methods: The inclusion criteria were insertional Achilles tendinosis that required surgical intervention (Haglund resection + Achilles insertion debridement and reattachment with speed-bridge technique) with a minimum follow-up of 18 months during the last 5 years. All the patients were contacted by email and/or phone call where they were invited to participate in the protocol. Two surveys were completed, Foot and Ankle Outcome Score to achieve general clinical condition and a previously validated Sport and Physical Activity Questionnaire.

Results: 35 patients qualified for the study. Postoperatively 81% of the patients were capable of returning to sports. Of this, 22% return to the same level of sport and 72% performed above to the presurgical level. Of the 5 patients not participating in sports after surgery 3 cited reasons other than the surgery for not participating and only 2 cited ongoing pain and instability as causes of avoiding sports. The average FAOS score was 89 (min 53, max 100).

Effectiveness of suture button versus screw fixation for the management of acute syndesmotic injuries: a systematic review and meta-analysis

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Background: Syndesmotic injuries requiring surgical intervention are common. Effectiveness of surgical management of these injuries has been firmly established; however, there remains ongoing debate surrounding the optimal implant. This systematic review was undertaken to compare the clinical outcomes and complications of suture button fixation to traditional screw fixation.

Methods: A systematic literature search including 11 databases was conducted in October 2022, identifying 16 randomized controlled trials involving 783 participants comparing outcomes for suture button compared to screw fixation of acute syndesmotic injuries.

Results: Patients treated with suture button fixation had a significantly better complication profile with less overall complications (Pooled Odds Ratio from pooled meta-analysis 0.22, p =<0.01, 95% CI 0.10 – 0.50), overall reoperations (0.34, p=<0.01, 95% CI 0.19 – 0.62), implant breakage (0.09, p=<0.01, 95% CI 0.03 – 0.21) and unplanned implant removal (0.37, p=0.01, 95% CI 0.18 – 0.76) without significant differences in rates of infection (p=0.35, 95% CI 0.61 – 4.14), syndesmotic malreduction (p=0.06, 95% CI 0.22 – 1.03) or range of ankle plantarflexion (p=0.13, 95% CI -0.07 – 0.51) or dorsiflexion (p=0.62, 95% CI -0.22 – 0.36). Across a range of clinical outcome measures suture button fixation had comparable outcomes to screw fixation, with the only statistically significant difference an improvement in American Orthopaedic Foot and Ankle Society (AOFAS) score at 1 year.

Conclusion: Suture button fixation has a significantly improved complication profile when compared to screw fixation. Suture button fixation also had slightly improved early functional outcomes, with similar short, medium, and long clinical outcomes. Therefore, suture button fixation should be recommended for the surgical management of syndesmotic injuries.

New perspective from old data: a contemporary, quantitative analysis of the first reported cervical facet dislocation produced in the laboratory.

RYAN QUARRINGTON; Robert Bauze; Claire Jones

Spinal Research Group, Centre for Orthopaedic & Trauma Research, Adelaide Medical School, The University of Adelaide, Australia; School of Electrical and Mechanical Engineering, The University of Adelaide, Australia; Royal Adelaide Hospital, Adelaide, Australia

Cervical facet dislocation (CFD) is frequently associated with spinal cord injury, yet the biomechanics underlying this devastating injury are not well understood. In 1978, Robert Bauze published the first study (of only two) to systematically produce CFD in cadaver spines, but limited experimental detail was reported. A more nuanced analysis is likely to provide new insights regarding CFD mechanisms. The aim of this study was to re-examine the original data to determine the intervertebral rotations and axial forces that occurred during these simulated CFDs.

In the original study, axial loading was applied to fourteen cervical spines (occiput-T2) that were fixed caudally. Sagittal cineradiograph films were available for ten spines; these were digitally scanned, and vertebral kinematics were determined. Six specimens had corresponding axial force charts; peak force and force at injury were determined. Descriptive statistics were obtained.

CFD occurred in 7/10 spines at the vertebral level of transition between upper neck extension and lower neck flexion (1×C4/C5, 4×C5/C6, 2×C6/C7); 2/10 did not experience CFD because the occiput detached from the loading platen, permitting hyperflexion, and caudal fixation failed for 1/10. At dislocation, mean sagittal flexion angle at the level of CFD was 20.6±6.6° and axial force was 617±73 N. Peak force (1094±239 N) coincided with posterior ligament failure and occurred prior to CFD.

This study provides new evidence supporting the contemporary hypothesis that cervical spine “buckling” produces subaxial dislocation. The kinematic and kinetic data may inform neck injury criteria specific to CFD to facilitate the development of novel safety devices.

Osteolysis in telescopic intramedullary nail used for osteogenesis imperfecta

DAVID NGO, Maya Todd, Franck Accadbled, Bruce Foster, Morten Stendahl Jellesen, Jan Duedal Rolfing, Jaideep Rawat

Flinders Medical Centre; Adelaide, SA; Technical University of Denmark

Case: A 15-year-old girl known with osteogenesis imperfecta presented with left femoral pain. She had been treated with multiple Fassier-Duval intramedullary nails, which were still in situ. Radiographic imaging demonstrated focal osteolysis and periosteal reaction at the telescopic junction of the rod in the distal femur. She underwent implant removal. Intraoperative sampling demonstrating acute sterile inflammation and presence of brownish colored particles consistent with metal debris and osteolysis. Explant analysis confirmed corrosion of the stainless-steel telescopic nail as the underlying cause.

Conclusion: Osteolysis and periosteal reaction because of corrosion should be considered in conjunction with other more common causes of pain, such as fracture or infection, in patients treated with telescopic intramedullary nails.

Surgical Units Mortality and Morbidity Meetings – Can we do better?

ELIAS AWWAD, Peter Smitham

Royal Adelaide Hospital, Adelaide

Introduction: Morbidity and Mortality (M&M) meetings are common practice amongst surgical units in Australia. They are regular meetings which involve peer review discussion of issues that result in complications or patient death. These meetings are integral to clinical governance.

Problem: To quote the Royal Australian College of Surgeons (RACS), 'M&M meetings are something we all do, they are not necessarily something we always do well'. For this reason and to address members requests to define the role and structure of M&M Meetings, RACS developed a guideline with recommendations on how to conduct effective M&M meetings. We reviewed adherence of Australian surgical units to these RACS guidelines.

Methodology: We surveyed Consultants, Fellows and Registrars from surgical units across Australia to assess how they perform M&M meetings. We looked at how closely the RACS guidelines are followed. We also gave respondents the opportunity to share their thoughts on what should be included, what they currently do well and what problems are encountered in the M&M process.

Results: Overall there was 70% compliance with RACS 18 points of guidance for M&M meetings. Main areas lacking included prior dissemination of a meeting agenda/cases to be presented, audit of M&M meeting procedures and having written terms of reference. Common themes across respondents answers related to review of previous M&M meeting suggestions for quality improvement, difficulties with data collection and presenting in a safe blame-free environment.

Implications: This survey of various surgical specialties across Australia highlights common areas for improvement and strategies utilised to overcome these.

A Longitudinal Retrospective Cohort Study Comparing Outcomes Following Hip Fractures in Australian First Nation Patients with Non-Australian First Nation Patients

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Department of Orthopaedic Surgery, Lyell McEwin Hospital, Elizabeth Vale, Adelaide, Australia; College of Medicine and Public Health, Flinders University, Bedford Park, Adelaide, Australia; Department of Orthopaedic Surgery, Alice Springs Hospital, The Gap, Alice Springs, Australia; Department of Orthopaedic Surgery, Wairau Hospital, Witherlea, Blenheim, New Zealand; Department of Orthopaedic Surgery, Christian Medical College Hospital, Vellore, Tamil Nadu, India

Objective: To compare hip fracture outcomes between the Australian First Nation (AFN) population and the non-AFN population.

Design: Retrospective cohort study.

Setting: Single regional trauma referral centre.

Participants: Patients presenting to Alice Springs Hospital with a low energy hip fracture between the 1st of January 2012 and the 31st of December 2022.

Main Outcome Measures: The primary outcome of interest was all-cause mortality. Secondary outcomes of interest were risk ratio (RR) of postoperative delirium and length of stay in hospital. Results: 125 patients with 127 hips were identified. There were 62 hips in the AFN group and 65 in the non-AFN group. There was no significant difference in all-cause mortality between groups ($p = 0.222$). There was also no significant difference in the 30-day (RR = 0.75, $p = 0.602$), 90-day (RR = 0.73; $p = 0.498$) and 1-year mortality (RR = 0.91 $p = 0.802$) between groups. Risk of postoperative delirium was similar in both groups (RR = 0.93; $p = 0.802$). The AFN cohort had a four day longer median length of stay, which was statistically significant ($p = 0.042$).

Conclusion: AFN patients with hip fractures were younger, more comorbid, and had higher incidence of diabetes and associated end-organ sequalae. There were no differences in all-cause mortality or the risk of postoperative delirium between groups. However, length of stay was longer for the AFN group.

Derotational Plate Augmentation with Retention of Intramedullary Interlocking Nail in Resistant Nonunion at Distal Femur Shaft

WAQAS AHMED; Muhammad Khalid Syed; Syed Imran Haider; Muhammad Mazhar Rafique; Zafar Ali; Muhammad Iqbal

Mayo Hospital, Lahore; King Edward University, Lahore; Allama Iqbal Medical College, Lahore; Post Graduate Medical Institute, Lahore; General Hospital, Lahore

Background: Non-union in femur shaft after satisfactory treatment with closed intramedullary interlocking nail is not very common. This non-union is always a challenging condition for surgeons. These non-unions are usually treated by dynamization, close exchange nail with larger diameter, retention of nail and onlay bone graft, removal of nail and fixed with plates and bone graft, removal of nail and application of cast brace and sometimes removal of nail and applications of external fixators. But no treatment is' gold standard', rotational instability is blamed to be one of the most common reasons for non-union.

Aim: To control rotational instability, we did plate augmentation with\without bone grafts without removing nails to treat this non-union.

Methods: Total patients were 16. Proximal and distal interlocking screws were removed, non- union site was opened, compression at non-union site was done, and broad DCP was applied as a derotation plate with or without bone grafting. We excluded fractures less than one-year old or with infective non-union.

Results: In 12 patients bone grafting was done where there was less callus or suspicion of atrophic non-union. We got a union in all patients. 6.25 months was the average time of union. 13 months was the average time between primary and secondary surgery. 71 minutes was mean surgical time. Complications or any implant failures were not noted. 0.9cm was average residual limb shortening and 115 degrees was average range of motion at knee joint.

Conclusion: Non-union in distal femur shaft fracture with interlocking nail in situ is reliable and effective procedure.

Breaking the silence: Understanding domestic violence and forearm fractures in Indigenous communities

CASEY KNIGHT, Matthew Cehic, David Morris, Kanishka Williams

Alice Springs Hospital, Orthopaedic Department

Background: Domestic violence amongst Indigenous communities remains a significant public health concern. Indigenous women are affected at disproportionately higher rates than non-Indigenous females, with the normalisation of male aggression, patriarchal social structures and rigid gender constructs attributed to the increasing rates of violence. Ulna shaft fractures are commonly attributed to assault, with forearm being raised as a defensive strategy. This study aimed to determine the incidence of domestic violence rated forearm fractures presenting to the Alice Springs Hospital (ASH) between 2010-2022.

Methods: We conducted a retrospective analysis of all extra-articular forearm fractures in patients aged 18 or older between the years 2010 and 2022. Domestic violence was defined as assault by a family member or intimate partner.

Results: Amongst 312 patients presenting with extra-articular forearm fractures, 139 (44.6%) sustained these secondary to domestic violence incidents. 100% of patients were Indigenous, with a mean age of 37 years. Females were overrepresented accounting for 139 (78.4%) of patients. The most common injury was an isolated ulnar shaft fracture (87.1%) with 29.6% of patients having radiographic evidence of previous ipsilateral forearm fractures.

Conclusion: Indigenous patients in Central Australia suffer high rates of domestic violence related forearm fractures. Cultural stigma surrounding healthcare perpetuates an additional barrier for victims of domestic violence within Indigenous communities. This review highlights the need to implement further social and community interventions to reduce the rates of domestic violence related assaults, particularly amongst Indigenous communities in Central Australia.

Long-term follow-up shows comparable outcomes for early conversion to a below-elbow cast compared to only an AEC for paediatric reduced diaphyseal both-bone forearm fractures

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Background: or distal forearm fractures in children, it has been shown that a below-elbow cast (BEC) is an adequate treatment that overcomes the discomfort of an above-elbow cast (AEC) and unnecessary immobilization of the elbow. For reduced diaphyseal both-bone forearm fractures,

our previous randomized controlled trial (RCT) which compared AEC with early conversion to a BEC revealed no significant differences in re-displacement rates or functional outcomes at shortterm follow-up. Although long-term results after diaphyseal both-bone forearm fractures in children are scarce, they are essential to finding the effect of growth on clinical outcomes. Therefore we conducted a long-term follow-up study to answer the following questions; 1. Does early conversion from an above-elbow to a below-elbow cast in children with reduced, stable diaphyseal forearm fractures result in a) poorer clinical outcomes, b) more radiographic malunion? 2. Does an accepted secondary displacement leading to a malunion result in inferior clinical outcomes at long-term follow-up?

Methods: In this study we did a long-term follow-up of children who were included in a previous RCT. The original RCT was registered in ClinicalTrials.gov with registry identifier NCT NCT00398242. Ethics approval was obtained for this post-trial follow-up study with protocol number NL41839.098.12. Eligible patients were invited for long-term functional and radiographic assessment. The primary outcome was the difference in forearm rotation compared to the uninjured contralateral arm. Secondary outcomes were loss of flexion and extension of the elbow and wrist compared to the contralateral forearm, the ABILHAND-kids and quick-DASH questionnaire, JAMAR grip strength ratio, and radiological assessment of residual deformity.

Results: The mean duration of follow-up was 7.5 (range 5.2 to 9.9) years. Out of 127 participants, 97 were included (76%). Loss of forearm rotation was 7.90 (SD 17.70) for the AEC group and4.10 (SD 6.90) for the AEC/BEC group, with a mean difference of 3.80 (95% CI -1.7 to 9.4; p=0.2). The long-term follow-up showed significant improvement in forearm rotation in both groups compared to the rotation at 7 months. Thirteen patients with persisting malunion at 7 months follow-up showed no clinically relevant differences in functional outcomes at long-term follow-up compared to children without malunion. The loss of forearm rotation was 5.50 (SD 9.10) for the malunion group compared to 6.00 (SD 13.90) in the non-malunion group, with a mean difference of 0.40 (95 % CI of -7.50 to 8.40 p=0.9).

Conclusions: Early conversion to a BEC in reduced diaphyseal both bone forearm fractures in children is comparable to treatment with an AEC at long-term follow-up and should be the treatment of choice. Moreover, this study shows that remaining growth behaved like a friend in children with reduced diaphyseal both bone forearm fractures, as patients in which secondary fracture displacement occurred showed good to excellent long-term results.

Quantitative analysis of Grade 5/6 Scapho-lunate injury pattern by applying computational isometric analysis to the disrupted and virtually reduced carpus.

ZHENGXU CHENG;D r Michael Sandow ; A/Prof Claire Jones; Prof Carl Howard

Wakefield Orthopaedic Clinic, Adelaide; Centre of Orthopaedic and Trauma Research, University of Adelaide; Department of Mechanical Engineering, University of Adelaide University of Adelaide, SA;

Introduction: Isometric carpal connections, which largely corresponded to known ligaments, were identified by analysing 3D models created from CT scans of normal wrists that were captured in extremes of motion. Attempts to similarly analyse muti-positioned injured wrists, to allow a quantitative ligament disruption diagnosis, was unsuccessful. This study presents an alternate isometric analysis technique comparing: 1. the initial injured carpal alignment, and 2. virtual reduction of the pathologically displaced carpal bones.

Methods: Segmented 3D models of wrists demonstrating Grade 5/6 scapho-lunate instability were created from standard CT scans. After placing markers and measuring the distance between the relevant bony regions, the carpal bones were virtually realigned to best guess normal alignment. Inter-marker distance was then remeasured and the variations expressed as percentage of the initial length. Isometricty was defined as a less than 5% variation. Measurements were performed for each of dSLIL, STT and LRL regions.

Results: Five patients with grade 5/6 (Garcia -Elias) scapho-lunate instability have undergone the alternate quantitative ligament disruption analysis. All had a lack of isometricity in the region corresponding to the dSLIL, 4 of the 5 patients in the STT and 3 of 5 for the LRL region. In 3 patients, all 3 regions were non-isometric.

Conclusions: By assessing carpal isometricity by assessing the injured and virtually reduced carpus, the pattern of ligamentous disruption can be quantified. This may facilitate a ligament injury specific repair strategy. This work may allow reconstructive intervention testing by virtually applying the deficient ligamentous constraints and assessing if the carpal motion can be normalised.

Management of Traumatic Nerve Palsies in Pediatric Supracodylar Humerus Fractures: A Systematic Review

MAYA TODD, Christy Graff, George Dounas, Jonghoo Sung, Medhir Kumawat

Royal Adelaide Hospital; Women's and Children's Hospital; University of Adelaide

Purpose: Up to 12% of paediatric supracondylar humerus fractures (SCHFs) have an associated traumatic nerve injury. This review aims to summarize the evidence and guide clinicians regarding the timing of investigations and/or surgical interventions for traumatic nerve palsies after this injury.

Methods: A formal systematic review was undertaken in accordance with the Joanna Briggs Institute (JBI) methodology for systematic reviews and PRISMA guidelines. Manuscripts were reviewed by independent reviewers against the inclusion and exclusion criteria, and data extraction, synthesis, and assessment for methodological quality were undertaken.

Results: A total of 51 manuscripts were included in the final evaluation, reporting on a total of 510 traumatic nerve palsies in paediatric SCHFs. In this study, 376 nerve palsies recovered without any investigation or intervention over an average time of 19.5 weeks. Comparatively, 37 went back to theatre for exploration beyond the initial treatment due to persistent deficits, at an average time of 4 months. The most common finding at the time of exploration was entrapment of the nerve requiring neurolysis. A total of 27 cases did not achieve full recovery regardless of management. Of the 15 reports of nerve laceration secondary to paediatric SCHFs, 13 were the radial nerve.

Conclusions: Most paediatric patients who sustain a SCHF with associated traumatic nerve injury will have full recovery. Delayed or no recovery of the nerve palsy should be considered for exploration within four months of the injury; earlier exploration should be considered for radial nerve palsies.

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A snapshot of female representation in the presentation of orthopaedic research, an Australian perspective

KAROLINE KANT; Kathlyn Andersen

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Abstract: The gender disparity in orthopaedic surgery is well known and consistent globally. In Australia, the percentage of female orthopaedic consultants and trainees are 5.5% and 18.9%. Diversity within specialties can be visualised through annual scientific meetings (ASM). This study aims to quantify female representation in the presentation of orthopaedic research in Australia.

Methods: This is a retrospective cohort study of research presentations at the Australian Orthopaedic Association's ASM from 2021-2023. Abstract information was obtained from published scientific programs or via the ASM mobile application. Presenter gender was analysed by first name as a binary construct using a combination of biography, internet and registration searches and a validated website, Gender API (https://gender-api.com). The percentage of female versus male presenters was determined and compared across years.

Results: Of the total 936 research presentations, 15.9% were given by females. While there were decreased presentations by females in 2023 (12.9%) compared to 16.5% in 2021 and 18.5% in 2022, this was not significant ($p = 0.1318$). Topic areas with the highest percentage of female speakers included paediatrics (40.0%) and hand (25.0%), with the lowest percentage in shoulder and elbow (10.3%) and spine (3.8%).

Conclusions: This is the first paper to investigate gender disparity in the presentation of orthopaedic research in Australia. Despite efforts to increase female participation within the specialty there still exists a paucity of female representation. Increasing numbers of visible female presenters will serve to improve the gender landscape within orthopaedics.

Total Hip Arthroplasty, via Direct Anterior Approach, After Contralateral Proximal Femur Amputation: A Case Report

Joseph Femia, Tom Gieroba

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Lower limb amputation has been well characterised in the literature to cause resultant osteoarthritis in either or both the knee and hip of the contralateral limb. This rapid onset of osteoarthritis would further amplify the already significant physical disability and morbidity that comes with lower limb amputation. Total hip arthroplasty (THA) is a common operative treatment option for patients with severe or symptomatic osteoarthritis at the hip joint. The use of THA in patients with lower limb amputations is rare, with literature on this topic sparse. Of the limited literature available, the evidence and outcomes for hip arthroplasty with contralateral limb amputation is fleeting. In this case report, we describe a 52 year old female with moderate to severe left hip osteoarthritis following right proximal femur (subtrochanteric) amputation in the setting of right femoral osteogenic sarcoma 44 years earlier. To our knowledge this is the first published report describing THA, via a direct anterior approach, in a patient with contralateral proximal femur (subtrochanteric) amputation. We discuss the complex surgical considerations for this patient population, selection of approach and prosthesis and post-operative outcomes.

GAP Non-Union Managed in Radius and Ulna by Non-Vascularized Fibula Graft in Adults

WAQAS AHMED; Muhammad Khalid Syed; Ghulam Qadir Khan; Syed Imran Haider; Zafar Ali; Muhammad Iqbal

Mayo Hospital, Lahore; King Edward University, Lahore; Allama Iqbal Medical College, Lahore; Post Graduate Medical Institute, Lahore; General Hospital, Lahore; Nishtar Medical University, Multan

Background: The gap nonunion is considered to be a common and complex problem for orthopedic surgeons. The most common bone which is used to fill this gap is usually fibula. Fibula is easy to access with minimum complication at donor sites.

Aim: To evaluate the result to fill the gap in forearm bones with fibula.

Methods: 13 patients were selected. The age was between 20to 50 years. The mean age was 34.9 years. The graft was taken from the mid shaft of fibula and cancellous bone graft taken from the proximal tibia. Both grafts were placed at a gap and fixed with small fragment narrow DCP. Results: The bone gaps were from 4cm to 13cm. The mean gap was 7cm. Bone union was achieved in 12(92.30%) patients after the first procedure. The bone union was achieved in the remaining 1(7.67%) patient after secondary bone grafting. There was a satisfactory range of motion at distal and proximal joints in all patients.

Conclusions: Fibular bone grafting is a treatment of choice in gap nonunion because the procedure is simple and effective with low complication rate and high satisfaction rate.

Registered attendance at the Branch Scientific Papers day on 16 February 2024 attracts 2.5 CPD points which will be credited to your account at the end of the event.

Meeting Enquiries:

Melissa Dobson

Regional Manager SA&NT

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Save the Date

AUSTRALIAN ORTHOPAEDIC ASSOCIATION

Friday 9 August 2024
Adelaide Oval & Magill Estate