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EDITORIAL

Prof. V. Thirunarayanan

Editorial

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:1] [Pages No:00 - 00]

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ORIGINAL ARTICLE

Chandru A Kumar, Ganesan Ram Ganesan

Outcome Analysis of Ipsilateral Neck with Shaft of Femur Fractures Treated by Cephalomedullary Nail

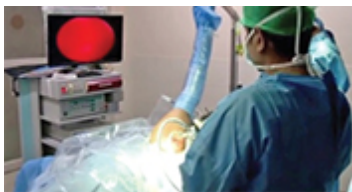
[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:3] [Pages No:1 - 3]

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Abstract

Background: The incidence of ipsilateral neck of femur with shaft of femur fracture was around 1–9%. The diagnosis of femoral neck fractures is frequently missed during the initial assessment due to more focus of femoral shaft fractures. There are hardly any literature regarding outcomes of ipsilateral neck and femur shaft fractures. The aim of the study is to assess the functional outcome of ipsilateral neck with shaft of femur fracture treated with cephalomedullary nail. **Materials and methods:** This is a prospective study done at Sri Ramachandra Medical College between April 2014 and December 2018 in the Department of Orthopedics. The inclusion criteria were patients above 18 years having ipsilateral neck with shaft of femur fracture. The exclusion criteria were isolated shaft or neck of femur fracture and patients who lost follow-up and open fractures. We had 15 patients who had full follow-up. The minimum follow-up was taken as 1 year. Patients' age group was between 24 years and 58 years with an average of 40 years. All the patients were followed up by modification of Wilde et al.'s Neer scoring system for outcome. **Results:** We had excellent results in five patients, seven patients had good results, and three patients had fair results. There was no poor result in our cases. In our study, 67% of the cases had no complications. The average time of union of the fracture was 25 weeks. **Conclusion:** Even though cephalomedullary nailing is technically demanding for ipsilateral neck of femur and shaft of femur fracture management, in our series with decent clinical outcome and fewer complications, it can be considered as an acceptable option in the management of these fractures.





ORIGINAL ARTICLE

Bellal S Rajsirish, Senthilvelan Rajagopalan, Ravi Nehru, Sridhar G Rajagopalan, Omprakash

Results of Arthroscopic Transosseous Rotator Cuff Repair Using the ArthroCuff System: A Prospective Study

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:6] [Pages No:4 - 9]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1015 | [Open Access](#) | [How to cite](#) |

Abstract

Introduction: Rotator cuff tears are one of the common cause of shoulder pain and disability. Transosseus cuff repair is still considered as the gold standard against which other techniques are compared. We studied the functional outcome of 50 patients with rotator cuff tear treated by our novel reusable arthroscopic transosseous repair system (ArthroCuff). **Materials and methods:** We performed a prospective study involving 50 patients with full thickness rotator cuff tears during the period from January 2017 to December 2107. Repair was done with the ArthroCuff system. The patients were followed up periodically at 6 months and 1 year; 2 years functional outcome was assessed for pain, Oxford Shoulder score and active range of motion. **Results:** At the end of 1 year and 2 years, all our patients had significant improvement in their Oxford Score, range of motion and pain relief. Two patients were trailing behind the mean at 6 months but they improved at 12 months. The results are comparable with other available transosseous systems and arthroscopic double row repair techniques. **Conclusion:** Arthroscopic transosseous repair though a reliable and cost-effective alternate to suture anchors, is not widely available in India. So, in association with the National Hub for Healthcare Device Development, we developed ArthroCuff. For cost-conscious countries a reusable system to provide a robust rotator cuff repair is the need of the hour and we believe surgeons and patients can benefit from the multiple advantages that exist with this system.



ORIGINAL ARTICLE

Sivakumar Raju, Prahalad Kumar Singhi, Vinoth Thangamani, Chidambaram Muthu

A Study of Surgical Intervention in Fractures of Post-polio Residual Paralytic Lower Limb, Challenges Encountered, and Outcome Analysis

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:7] [Pages No:10 - 16]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1019 | [Open Access](#) | [How to cite](#) |

Abstract

Introduction: India is now a polio-free nation, but a huge load of ambulatory polio survivors present with challenging deformities and fractures to the present generation of orthopedic surgeons. These fractures are more challenging, because of the paralyzed, contracted shaft of femur fracture tissues, and inappropriate muscle forces, causing deformities. Also hypoplastic, osteoporotic, and less vascularized bone will influence the reduction maneuver, implant selection, fracture healing, and final outcome. We assess the outcome of surgical management of femoral and tibial fractures in the post-polio residual paralytic limb and the challenges encountered. **Materials and methods:** Out of 22 cases with 23 fractures analyzed, 2 cases were lost to follow-up and hence excluded and the remaining 20 patients were analyzed. Pre-injury deformity, range of movement, mode of ambulation (Vignos scoring), mode of injury, surgical technique, rehabilitation, and outcomes were assessed. **Results:** Minimum follow-up duration was 30 months; union was achieved by 18–24 weeks. We had one delayed union and one

duration was 33 months, which was corrected by 15–21 weeks. We had one delayed union and one nonunion, which were managed with bone grafting. None of our patients had infection. A total of 16 patients regained their prefracture mobility; 4 patients developed hand to knee gait due to further weakness of the quadriceps muscle. **Conclusion:** In our series, femur was the most commonly fractured bone among the post-polio residual paralytic limbs. Fractures don't heal as readily as in normal bone. Conservative treatment has guarded prognosis. Decision of surgical treatment will be challenging. Pre-injury state, surgical planning, technique, and implant choice will be key factors with appropriate rehabilitation to have a satisfactory outcome.



ORIGINAL ARTICLE

Dhurvas R Ramprasath, Vasudevan Thirunarayanan, Joseph David Vimal Kumar, Arjun Rajan, Kabilan Muthulingam

Vertebroplasty in Osteoporotic Vertebral Fractures: Technical Considerations and Complications

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:5] [Pages No:17 - 21]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1018 | Open Access | [How to cite](#) |

Abstract

Background: Osteoporosis is a global problem involving majority of elderly population. Vertebral compression fracture in this population leads to severe pain and decreased quality of life. Percutaneous vertebroplasty alleviates the pain, with a minimal invasive approach. The aim of our study was to analyze the technical considerations and complications of this surgery. **Materials and methods:** Vertebroplasty was performed in 35 patients with male: female ratio 13:22 in the age group of 52–80 years. We used unipedicular needle insertion and injected 2–3 mL of high-viscosity polymethylmethacrylate in the fractured vertebral body. Visual analog score, Oswestry disability score, and Oswestry disability index were used to analyze functional outcome. **Results:** Pain relief had a significant p value (<0.0001). Oswestry disability score and index showed a good improvement in the quality of life with a p value < 0.0001 . The Beck index did not show a significant change postoperatively. Complications encountered were cement extravasation into venous pathway, cement extravasation into the soft tissue, cement extravasation into the needle tract, and adjacent vertebral fractures. No major complication was encountered. **Conclusion:** Vertebroplasty provides better pain relief, improved function, and quality of life than conservative management. Use of an appropriate technique will improve the overall success rate of the procedure and minimize the complications. **Clinical significance:** For patients with osteoporotic fractures who do not respond to conservative measures, vertebroplasty is a simple, effective, and minimally invasive procedure providing adequate pain relief and improving the quality of life.



RESEARCH ARTICLE

Kandasamy Velmurugan, Muthu Sathish, Annamalai Saravanan

Effectiveness of Pain Control Regimen with Local Infiltrative Analgesia for Total Knee Replacement: A Prospective, Double-blind, Randomized Controlled Trial

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:4] [Pages No:22 - 25]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1010 | Open Access | [How to cite](#) |

Introduction: Postoperative pain relief in total knee replacement remains a major determinant in the duration of the hospital stay and return to daily activities. Nowadays, a great attention has been given to pain management in the perioperative period focusing on faster recovery. Various analgesic regimens have been in use. The aim of this study is to evaluate the efficacy of our pain control regimen along with the use of local infiltration analgesia (LIA) in terms of postoperative pain control. **Materials and methods:** A total of 50 patients were included in the study, and they were randomized into study group and control group by computerized randomization, and the study group was followed up with the multimodal pain relief protocol, while the control group was given a placebo; the results were measured with preoperative and postoperative visual analog score (VAS) and results were analyzed. **Results:** Visual analog score showed a drastic fall of average 4.36 scale parameters compared with the preoperative in the study group and a significant difference of 1.88 on VAS scale compared with postoperative score of the control group. The mean postoperative score was 3.88 in a scale of 10 in the study group, while it remained 5.76 in the control group. **Conclusion:** Our pain management protocol using effective LIA along with the pain control regimen has revolutionized postoperative recovery. Pain control and patient satisfaction were extremely high. The average length of hospital stay has been reduced to 2.12 days with the implementation of this regimen, with most of them discharged within 24 hours and all of them by second day.



RESEARCH ARTICLE

Clara On-Ki Lee, Wai-Wang Chau, Victor Illescas, Bobby Kin-Wah Ng

Twenty Years of Experience of Fracture Neck of Femur in Pediatric Population in Southern China

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:5] [Pages No:26 - 30]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1014 | [Open Access](#) | [How to cite](#) |

Abstract

Introduction: The aim of this study was to review the cases of pediatric fracture neck of femur (FNOF) in Hong Kong SAR, Southern China, from 1998 to 2017 and to study the experience in our locality and find out any specific pattern and any preventive measures to reduce this type of injury. **Materials and methods:** Seventy-two teenagers who suffered from FNOF were recruited. Demographic characteristics, radiological and functional outcomes, and trauma levels were collected and analyzed. **Results:** Mean age at injury was 12.42 years. Garden's classification was found in four cases (50%). The number of patients admitted in summer was significantly higher than during winter (57.1% vs 42.9%, $p = 0.04$). **Conclusion:** There was a higher incidence of FNOF in summer compared to winter. There was a change in major trauma incidence from high-energy to low-energy trauma over the 20 years. Patients with low-energy injury stayed shorter period in the hospital than those who sustained high-energy injury. **Key messages** 1. Majority of the patients who sustained FNOF are older children (>10 years old), and most were boys. 2. There is a seasonal pattern for the injury where summer is slightly predominant. 3. There is a changing dominance in injury mechanism from majority of high-energy to low-energy trauma over the 20 years.



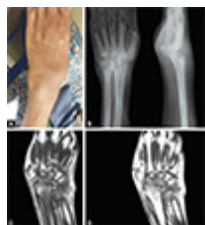
RESEARCH ARTICLE

Unstable Intra-articular Fracture Distal Radius Managed by Combined External Fixation and Internal Fixation by Volar Plating

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:7] [Pages No:31 - 37]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1025 | Open Access | [How to cite](#) |**Abstract**

Background: Combined external fixation and internal fixation of distal radius fractures is used most commonly to treat injuries with joint surface or metaphyseal comminution. External fixation aids reduction intraoperatively and facilitates percutaneous or intraoperative manipulation of fracture. Internal fixation maintains precise reduction in critical anatomy, principally the contour and orientation of the articular surface. Postoperatively, the external fixator functions as a neutralization device, preventing fracture collapse and decreasing the biomechanical demands on the internal fixation hardware. **Purpose of study:** The aim of this study is to see short-term functional and radiological outcome analysis in patients with unstable intra-articular distal radius fracture treated with combined external fixation and open reduction and internal fixation by volar plating. **Materials and methods:** A total of 25 cases of unstable intra-articular distal radius fracture (AO Type C group) were treated by combined transarticular external fixator and internal fixation by volar plating with supplementary procedures such as primary bone grafting and K-wire fixation if necessary. The abovementioned study was conducted in Government Royapettah Hospital, Chennai-14, from June 2010 to May 2012. The Modified Gartland and Werley Demerit Scoring system was used to evaluate the functional outcome. In most cases, external fixator was left for a period of 6 weeks. **Results:** There were 25 patients ranging from 20 to 70 years with 16 males and 9 females. The follow-up period was from 12 to 18 months. Accordingly, there were 14 (56%) excellent, 8 (32%) good, 2 (8%) fair, and 1 (4%) poor results. There were very few complications such as one malunion, two superficial radial nerve palsy, and two secondary fracture collapse noted in our series. **Conclusion:** We conclude that unstable intra-articular fractures of distal radius treated by combined external fixation and internal fixation by volar plating provides high rate of fracture union and high level of patient satisfaction with early return to work.

**CASE REPORT**

Govindarajan Hemanthakumar, Muthu Sathish, Naganathan Muthalagan

Wrist Arthrodesis in Rheumatoid Arthritis by Parallel K Wires and Ulna Autograft: A Case Report

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:3] [Pages No:38 - 40]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1011 | Open Access | [How to cite](#) |**Abstract**

Case description: Nowadays, management of end-stage rheumatoid wrist remains controversial between fusion and arthroplasty. We present a simple method of rheumatoid wrist fusion in a 56-year-old woman, using parallel Kirschner (K) wires and local ulna graft. Wrist fusion was achieved at 8 weeks, while implants are removed a month later without any complications in the immediate or late postoperative period. **Conclusion:** Management of end-stage rheumatoid wrist with parallel wires remains a simple, versatile, and reliable method to achieve wrist fusion without any complication due to hardware or the disease by itself.



CASE REPORT

Sumathi Chellapa, Venkatesh Babu Subbiah

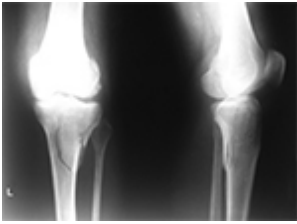
[Transient Osteoporosis of Hip with Bone Marrow Edema Syndrome in a Pregnant Woman in Tirunelveli, Tamil Nadu, India](#)

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:2] [Pages No:41 - 42]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1016 | Open Access | [How to cite](#) |

Abstract

Case description: After normal delivery of her healthy child 20 days back, this 30-year-old woman presented to the authors with significant left hip pain and radiation to her left thigh limiting her routine activities. We are presenting the rare condition of transient osteoporosis of hip (TOH) with bone marrow edema which had been successfully managed with conservative treatment in the southern region of India. **Conclusion:** We validate that our Indian pregnant women can face the challenge of this rare condition of TOH with bone marrow edema which can be treated well.



CASE REPORT

Murali Mothilal, F Abdul Khader, T Sundara Rajan, Jamal Mohammad

[Schatzker Type VI Injury with Missed Posterior Dislocation of the Hip](#)

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:3] [Pages No:43 - 45]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1017 | Open Access | [How to cite](#) |

Abstract

Introduction: Posterior dislocation of the hip can be an associated injury with fracture neck and shaft of the femur fractures. **Case description:** A 33-year-old male came to us with above knee slab of the left leg. He had a fall from the bike and took initial treatment elsewhere. The X-ray and diagnosis of Schatzker type VI injury of the left knee were already done in the previous hospital. The upper tibia fixed with L-plate with screws. When the patient started walking in parallel bar, he felt twisting strain on the left hip and complained of pain in the left hip region. Now, the patient had shortening and internal rotation of the left lower limb. Clinically diagnosed posterior dislocation of the left hip was confirmed with X-ray. Reduction of dislocation was done. **Conclusion:** X-rays of proximal and distal joints are mandatory. The statement stands testimony every time.



CASE REPORT

Prahalad Kumar Singhi, Sivakumar Raju, Venkatappa Somashekar, Raghava Kumar

Avascular Necrosis of Metacarpal Head in an Amateur Volleyball Player: A Case Report

[Year:2020] [Month:January-June] [Volume:2] [Number:1] [Pages:3] [Pages No:46 - 48]

[PDF](#) | DOI: 10.5005/jp-journals-10079-1020 | [Open Access](#) | [How to cite](#) |

Abstract

Avascular necrosis of the metacarpal head is very rare compared to that of femoral head, talus, or scaphoid. Mauclaire disease also known as Dietrich's disease is a rare condition that refers to osteonecrosis of the metacarpal head. It can be multifactorial, usually associated with systemic lupus erythematosus (SLE), steroid use, or trauma. We present a case of 13-year-old boy, an amateur volleyball player presented with pain and swelling of the right index finger for 3 months. Initial X-rays were normal but subsequent X-rays revealed a mild flattening of the second metacarpal head; blood investigations were normal. The MRI revealed osteonecrosis with mild flattening of the second metacarpal head with synovial effusion. The patient was misdiagnosed as tuberculosis of the metacarpal head before presenting to us. The patient was treated conservatively with good functional outcome. Though several cases of Dietrich's disease have been reported in the literature but none in a volleyball player, just to stress that repeated microtrauma could also be an etiological factor and a rare differential diagnosis in patients with the painful metacarpophalangeal (MCP) joint. Most of the patients can be managed conservatively with good functional outcome. Curettage and bone grafting, transfer of metatarsal head, osteotomies, arthroplasty (excision or prosthesis), or arthrodesis have been described as various surgical means of treatment.