MERRY CHRISTMAS
&
HAPPY NEW YEAR

CONTENTS

▶ Greetings from the President.................................................................[2]
▶ Reflections by the Scientific Chairman...............................................[3]
▶ Message from the Editor........................................................................[5]
▶ Clinical Case - 1 .....................................................................................[6]
▶ Clinical Case - 2 .....................................................................................[10]
MESSAGE FROM THE PRESIDENT

Dear friends,

One more year passes us by and brings so many treasured memories to be reflected upon and enjoy in the times to come!

The past year, has seen the better part of my Presidency, and this privilege will always be cherished by me and my family for the rest of our lives.

The world has changed dramatically over the last few years with almost all different geopolitical areas showing a dramatic shift of public sentiment and approach to life.

Values which were treasured by almost all people across the free world seem to be metamorphosing into different forms.

Amongst these gradually building waves of changing political scenarios, societal values and transfer of wealth from some areas of the world to other parts of this globe, the one thing which perhaps remains constant, is the fundamental unchanging truth that science brings in our life.

It has been our privilege as arthroplasty surgeons to have based our entire life efforts on science, albeit our science is not necessarily an exact one!

Having said that it has always been my experience that as a fraternity, we value the pursuit of truth which science brings, with unwavering focus.

APAS is nothing but a platform which allows all of us to congregate and reinvigorate each other in this pursuit of truth through the science of arthroplasty.

We will meet once again in the third week of August 2024 to reinvigorate ourselves in this pursuit of science in Mumbai as part of the Annual Scientific Meeting hosted by APAS.

I invite all of you to join us at Westin, Mumbai, a place par excellence, and saddle up for one more year of energetic furtherance of your careers as arthroplasty surgeons.

I thank all of you for the honour bestowed on me, and wish you & your families a happy Christmas season and a productive New Year to come.

Sincerely,

Prof Dr Bharat Mody
MESSAGE FROM THE SCIENTIFIC CHAIR

Dear APAS Members,

As we approach the end of this calendar year, we will all reflect on the impact of 2023 on each of us as we prepare to celebrate the best of the season's offerings in our own special way. Our society stretches over a vast region and interacts with many from different countries and different cultures and beliefs, but in a world troubled by ideology, it is warming to see that on a scientific and academic level, we interact with friendships that have spanned many years and, in some cases, decades, and new acquaintances that bring us new scientific insights and understanding and tolerance. In that vein, I have found working with our current president, Bharat Mody, an absolute pleasure throughout this year, particularly as we step it up a notch for preparation for APAS Mumbai 2024.

As I look back at the year that was, I can see how APAS has been instrumental in its own way to reach out and make a difference. APAS accepted an invitation from the Japanese Society for Replacement Arthroplasty to attend their ASM in Yokohama in February. This was an excellent exchange of ideas between our two societies, and APAS has extended a return invitation for members of JSRA to join our next ASM in Mumbai. We look forward to their participation and their academic input.

APAS has run a traveling fellowship program for a few years, but this year, in parallel to our annual traveling fellowship gratefully sponsored by Depuy Synthes, we commenced our first Women in Arthroplasty traveling fellowship program, thanks to new sponsorship from Zimmer Biomet. Both fellowship programs have given opportunities to four young surgeons to travel to excellent arthroplasty units to engage with APAS faculty in their operating theatres, in their rooms, and socially to establish ongoing lines of communication and lifelong learning. We thank the units in the following cities for their contributions to make these fellowships successful: Mumbai, Pune, Chennai, Sydney, Brisbane, Melbourne, Jakarta, Bandung, Kuala Lumpur, and Ipoh.

This year, the annual scientific conference was held in Cebu, Philippines. Attended by over 230 delegates, it was another great meeting that focused on the current updates for hip and knee arthroplasty.
It had it all with a great venue at the Shangri-La resort, fantastic academic contributions from an extended international and local faculty, and some sensational social events after hours with memories of those Lechons or roast pig - the taste of which was mind-blowing.

We are now working hard to prepare an equally engaging and satisfying academic learning event at our APAS 2024 Mumbai ASM. Dates are set from Wednesday afternoon, 21st August, to Saturday afternoon, 24th August. Once the conference website goes live in late January 2024, please register early to make the most of the discounted early bird fees. Mumbai is India’s biggest city and has a lot to offer in addition to the wonderful program being organized for you at the conference, so we look forward to welcoming you all there!

This year has seen exciting and interesting cases added to the members’ clinical forum library on the APAS website, which has been running now for 10 years and has accumulated eighty great cases for review and learning to be shared with all members. This is a reminder that any member may contribute a good case of interest in surgical technique or diagnosis to the library by contacting me or Rajeev Sharma, as knowledge shared is to everyone’s benefit, especially our patients.

In the coming year, under the watch of our first vice president, David Choon, we are working on an online platform to teach and engage with young surgeons on basic surgical techniques and patient management. As part of this drive, we shall be delivering a basic surgical skill teaching program and a young surgeons’ forum at APAS Mumbai, so do keep an eye out for it!

APAS, despite a modest membership, functions at an extremely high level and does not rely on annual membership contributions. We are indebted to industry support and partners and would like to extend our ongoing gratitude for the value they see in what we do. Our treasurer, Simon Coffey, keeps us well balanced but wishes to encourage members to share their good experiences, especially with our annual conferences openly to encourage more to join APAS as members in the coming year.

Finally, our new editor of the APAS newsletter, Kshitij Mody, has done a brilliant job with these informative mailouts! So, if he reached out to you for a contribution, please respond in kind or, better still, send him a contribution for inclusion in upcoming newsletters for 2024 and get your thoughts published with APAS. All good contributions from members are welcome!

From our executive committee to all our members, we wish you a very merry Christmas season and happy holidays in the hope that many of you will be able to take some downtime to celebrate the joy of family and good friends.

My best personal regards,

Rami Sorial
Dr. Nicolaes Tulp was appointed praelector of the Amsterdam Anatomy Guild in 1628. One of the responsibilities of this position was to deliver a yearly public lecture on some aspect of human anatomy. The lecture in 1632 occurred on 16 January, and this is the scene that Rembrandt depicts in paint in The Anatomy Lesson of Dr. Tulp.

The Anatomy Lesson of Dr. Nicolaes Tulp" is considered one of the greatest paintings of Dutch Artist Rembrandt which probably shows the anatomical dissection of the hand vividly probably for the first time on a canvas along with the demonstration of the surgical anatomy by the Praelector Dr. Nicolaes Tulp to fellow surgeons and surgical trainees.

The painting has been subjected to various scrutiny and debate by researchers for wrongful depiction of the anatomy of the hand muscles. Can you spot the error??
MESSAGE FROM THE EDITOR

Dear APAS Community,

As the year draws to a close and we embrace the festive spirit, I extend my warmest wishes to each and every member of the Asia-Pacific Arthroplasty Society. It has been a year filled with achievements, collaboration, and shared dedication to advancing orthopaedic excellence.

In the spirit of the season, may joy and warmth surround you and your loved ones. May the holidays bring moments of reflection, gratitude, and peace. Your commitment to the field of arthroplasty has been the cornerstone of our collective success, and I am truly grateful for the privilege of serving as your editor.

As we eagerly anticipate the festivities, let us also look forward to the promise of a new year. 2024 holds exciting opportunities, and I am thrilled to announce that our Annual Scientific Meeting will take place in the vibrant city of Mumba. Save the date and prepare for a gathering that promises enriching discussions, collaboration, and the exploration of ground-breaking advancements in our field!

I invite you to reflect on the accomplishments we have achieved together and to celebrate the bonds that make our society strong. The APAS community is a tapestry of diverse talents and perspectives, and it is this richness that propels us forward.

Thank you for your unwavering support, passion, and dedication. May the holiday season bring you joy, and may the coming year be filled with continued success and growth.

Wishing you and your loved ones a Merry Christmas and a very Happy New Year!

Warm regards,

Dr Kshitij Mody

Editor, APAS Global Newsletter
Title: Management of a rare case of Unstable Arthritic Knee.

Author: Vishnu Senthil, Assistant Professor – Dept of orthopaedics, Govt Royapettah Hospital, Chennai

Introduction:

Arthritic knee with extensively deformed femoral condyle is rare. An adult woman presented with an unstable knee which was treated with rotational hinge distal femur replacement arthroplasty.

Case Report:

A 51 year old woman from low socio-economic status, presented with a floppy knee which affected her activities of daily living. Onset of deformity was insidious and progressive, starting from the age of 18 years as re-collected by patient. Gait - walking with support, locking the knee in hyper-extension while standing. Patient had taken only conservative management in the form of pain relieving medications and physiotherapy. She wished for a stable and painless knee.

Knee ROM was 0-20 degree with varus and valgus stability. Bio-chemical investigations showed normal ESR, CRP and Blood parameters. Skin was Normal. No evidence of post-infective status.

Radiological examination showed complete loss of lateral condyle and deformed medial condyle (Figure 1). Differential Diagnosis - Post-septic sequelae, Charcot joint or presence of underlying neurological pathology was considered. The only history suggestive of post-septic sequelae was varicella infection at the age of 18 years. Spine x-ray was normal with no clinical neurological deficit. Distal pulses were palpable.

Surgical technique - standard mid-line incision with medial para-patellar arthrotomy was done, the fibrotic tissue over the tibial and femoral condyle was removed. Medial femoral condyle metaphysis consisted of only a sleeve of bone. Lateral femoral condyle was completely absent (Figure 2). Care was taken to avoid patellar tendon rupture. Deformed medial condyle was resected (Figure 3). Proximal tibial cut taken. LINK endo femur prosthesis was trialled (Figure 4). Final implantation of a rotating hinge prosthesis (Figure 5) with cementation of the femoral and tibial canal was done (Figure 6). Patella was resurfaced and complete lateral retinacular release was done to mobilise the patella, to achieve patellar tracking. Intra-operative ROM of 0-90 degrees was achieved.

Post-operative status - peroneal nerve intact. At 2 years follow up, radiograph of the knee showed intact hinge prosthesis with no evidence of loosening albeit some osteolysis of bone was seen at the femoral stem bone junction (Figure 8). Knee ROM is 0-110 degrees (Figure 9). Patient walks full weight bearing and has resumed all activities of daily living.

Points to learn:

1. Deformed condyle on X-ray – diagnostic dilemma, to rule out various infective and other dysplastic causes.

2. Asymmetric involvement of condyles suggests the presence of embryonic septations of condyles.
3. Preoperative planning is needed and intra-operative availability of distal femur replacement prosthesis.

4. Patellar mal-tracking and patellar tendon problems are common, to be tackled intra-operatively by adequate release of tight tissues, joint line restoration and preventing excessive lateral side retraction.

Figure 1:

Legend: Plain standing pre-op radiograph AP (A) and Lateral (B) views of knee showing absent lateral condyle and deformed medial condyle.

Figure 2:

Legend: Intra-operative image of knee following medial para-patellar arthrotomy and scar tissue excision. It shows a deformed medial femoral condyle and an absent lateral condyle with medial side tibial loss.
Figure 3
Legend: Intra-operative images showing the resected femur fragment (A) of about 7 cm of deformed medial condyle – as measured with a steel scale (B)

Figure 4
Legend: Intra-operative picture showing trial prosthesis with intact patellar tendon.

Figure 5:
Legend: Definitive Femur and Tibial endo-prosthesis with rotating hinge poly-ethylene.
Figure 7: Legend: Immediate post-operative plain radiographs showing AP (A) and Lateral (B) views.

Figure 8: Legend: Post-operative plain radiograph of knee at 2 years follow up, showing standing Anterior-posterior (A) and Lateral views (B).

Figure 9: Legend: Clinical Picture of Knee Movements at 2 years follow up showing knee flexion 0-110 deg (A) and straight leg raising (B).
CLINICAL CASE

TUMOR PROSTHESIS IN A POST-TRAUMATIC SUPRACONDYLAR FEMUR FRACTURE MALUNION

A 60-year-old female patient presented at our clinic with complaint of persistent pain over the right leg and a limp while walking. The patient had suffered a right distal third femur fracture 2-years back which had been operated elsewhere with a femoral plating, however a Hoffa's fragment had been missed and was not fixed. The patient had started weight bearing when one day after a sudden jerk she had fallen to the ground and came to us. Xray revealed a malunited right supracondylar femur fracture with a flexion deformity and a broken implant.

Author:
1. Dr. Rajeev K Sharma, Chairman orthopedics, Moolchand Medicity, Delhi.
2. Dr. Udit Vinayak, Clinical Associate Orthopedics, Moolchand Medicity, Delhi.
3. Dr. Niharika Virkar, Orthopedics.

Surgical Technique

We planned to use a total cemented knee arthroplasty system for achieving fixation and restoration of the limb alignment of the right knee. This is a mega prosthesis with modular distal femoral components, a cemented femoral and tibial stem with a fully porous coated metaphyseal sleeve, modular tibial component, and a rotating hinge articulation. Surgery was performed under spinal anesthesia with tourniquet. 1g vancomycin and 80mg tobramycin were administered before surgery. 1g tranexamic acid was used for bleeding control, administered preoperatively and intraoperatively. We used a standard medial parapatellar approach, the previous plate was exposed. First the proximal portion was removed and subsequently the distal supracondylar part was removed en-block with the supracondylar femur while keeping a minimum distance of 8cm from the joint line for proper placement of the final implant. The removed components were compared with the trial implants to allow for approximate sizing of components. After a 1 cm proximal tibial cut, the tibial canal was sequentially reamed and broached to the appropriate size, followed by assembling of the final components. The tibial components were placed in a press-fit fashion with a small amount of cement beneath the tibial tray. The femoral canal was sequentially reamed and broached and trial components were assembled in the femur. Trialing was performed to assess rotation and patellar tracking. The canal was filled in a retrograde manner using pressurized gentamicin bone cement and final components were cemented in place. Palacos bone cement was used to fix the distal femoral stem extension to host bone. The wound was closed in layers with absorbable sutures. The next day, the drain was removed, and the patients started the rehabilitation protocol consisting of active exercises and assisted loading with walker support.

Discussion

Comminuted and periprosthetic supracondylar femur fracture malunions represent a challenge for any orthopedic surgeon. The use of knee mega-prosthetic implants could represent a valid treatment option aiming to reduce patients’ immobilization and hospital stay [1]. Good clinical outcomes with low rate of complications have been reported in previous studies [2, 3]. Moreover, ROM restoration and a
faster recovery can lower costs and complication rates due to the prolonged hospital stay [4]. Although complications have not been reported in all studies, deep infections [5] and wound complications [6] have been most observed. Saidi et al. [7] did not report any complications in the distal femur fracture group, but it must be noticed that only a six-month follow-up was carried out. Therefore, long-term complications cannot be excluded. Some other reviews have been previously published on the management of DFFs. Chen et al. [8] differently from the present paper, concluded that modular implants may be suitable for comminuted intra-articular fractures, whereas extra-articular fractures could be treated with fixation techniques. However, since comparative studies are lacking, it is not possible to draw a definitive conclusion. Several recent case reports and case series have also described the use of a custom intramedullary coupling device in treating supracondylar femoral fractures [9]. A five-year survival rate of 79.8% has been reported after such procedures in literature [10].

References


Front standing view  Side standing view  Xray at presentation

3D CT reconstruction

Broken implant in-situ  Calculating distance of distal femur cut
Reshaping of the distal femur

Assessment of trial implant length

Assembly of final implant

Insertion of distal femoral mega-prosthesis

Full flexion possible

Full extension possible

Immediate post-op xray – Lat

Immediate post-op xray - AP
Rotating hinge brace post-operatively

Full length scanogram showing limb alignment

Latest follow-up - AP

Latest follow-up - Lat

Full flexion-extension possible at latest follow-up