DOA NEWSLETTER

ASSOCIATION'S MONTHLY NEWSLETTER

FEBRUARY 2022 · ISSUE 03

Contents

DELHI ORTHOPAEDIC ASSOCATION

DELHI CHAPTER OF INDIAN ORTHOPAEDIC ASSOCIATION

Warm greetings to members of the Delhi Orthopaedic Association. We pray for the good health of you and your families. Change has been a constant and no better time to realize this fact in this pandemic. Well- being of the membership and academics has been the core motto of our association.

Dr. Atul Vaish	Dr. Shekhar Srivastav
President DOA	*Secretary DOA*

PRESIDENT MESSAGE

DR.ATUL VAISH

Dear members
Greetings from DOA.
We present to you our February issue of our bulletin with usual contents of interesting case study humor & Quiz.
The personality of this month is none other than our own Prof. S M Tuli sir. He is a doyen in the field of orthopaedic most revered and respected teacher who have always enriched us with his vast clinical knowledge. He always bless us by his devine presence in our academic activities. He is an inspiration to all of us and I feel young surgeon's must know about his achievements. We all wish him many more years of healthy life.
We are fortunate to start much awaited physical meets. The 1st quarterly meet organised at Le Meridien on knee arthroplasty was a great success.
The monthly virtual symposiums will continue on Trauma Theme. We are shortly planning to hold a sport's event in month of April.
My humble request to all the members for active participation in all DOA activities.
Freinds the strength of any organisation is its membership. Let us make a sincere effort to increase the numbers of our members.
I wish you all a very happy, enjoyable and safe Holi.

Long live DOA

Dr Atul Vaish
President DOA

SECRETARY MESSAGE

DR.SHEKHAR SRIVASTAV

[illegible] Delhi Orthopedics Association

Dear DOA Members
Greetings from DOA office
A very warm welcome to all members of Delhi Orthopedics Association. DOA has evolved into a vibrant organization with focus on academics as well as well being of its members. The organization reinvented itself in the time of pandemic and made sure that the academic part was not left behind by organising numerous webinars. Similarly the mental well being of the members were taken care by various sports and musical events.
The new team has inherited a wonderful legacy and we aim to build upon it to meet the aspirations of the members. There will be a focus on improving the communication between the organization and the members. This will ensure that all the members are aware of the activities and the benefits of DOA and also their suggestions and complaints are addressed. The strength of any organization is not in the number of members but the quality of interaction among its members & it'll be our endeavor to improve this two way communication between the members & organization.
As a secretary, it's my duty to remain accessible to you all the time for any issue or problem. Kindly feel free to get in touch with me for any problem.
It gives us great pleasure to present the third issue of DOA Newsletter

This is an attempt to keep members informed about the various activities being done under the aegis of DOA & also inform them about the forthcoming events. This will be in a digital format & will be coming out monthly. There are various segments in the newsletter & your suggestions are most welcome to make it better.
We'll be soon coming out with our annual calendar of various events being planned under the aegis of DOA.
We'll be very happy to receive your feedback & comments.

Jai Hind

Dr. Sekhar Srivastav
Secretary, DOA

Team DOA : Executive Committee 2021-2022

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President DOA

Dr. Anil Arora
President Elect DOA

Dr. R K Mishra
Vice President DOA

Dr Lalit Maini
Past *President DOA*

Dr Shekhar Srivastav
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Joint Secretary *DOA*

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EC Member North

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EC Member Central

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EC Member West

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EC Memeber West

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EC Member East

Dr Amit Kansal
EC Member East

Dr Mrinal Sharma
EC Member NCR

Dr Anuj Dhingra
EC Member NCR

Dr. Harmesh Kapoor
EC Member Co-Opt

Dr. Ravi Chauhan
EC Member Co-Opt

Dr. Samarth Mittal
EC Member Co-O

DOA PROFILE: THE PERSONALITY OF THE MONTH

DR.SURINDER MOHAN TULI

Dr. SM Tuli

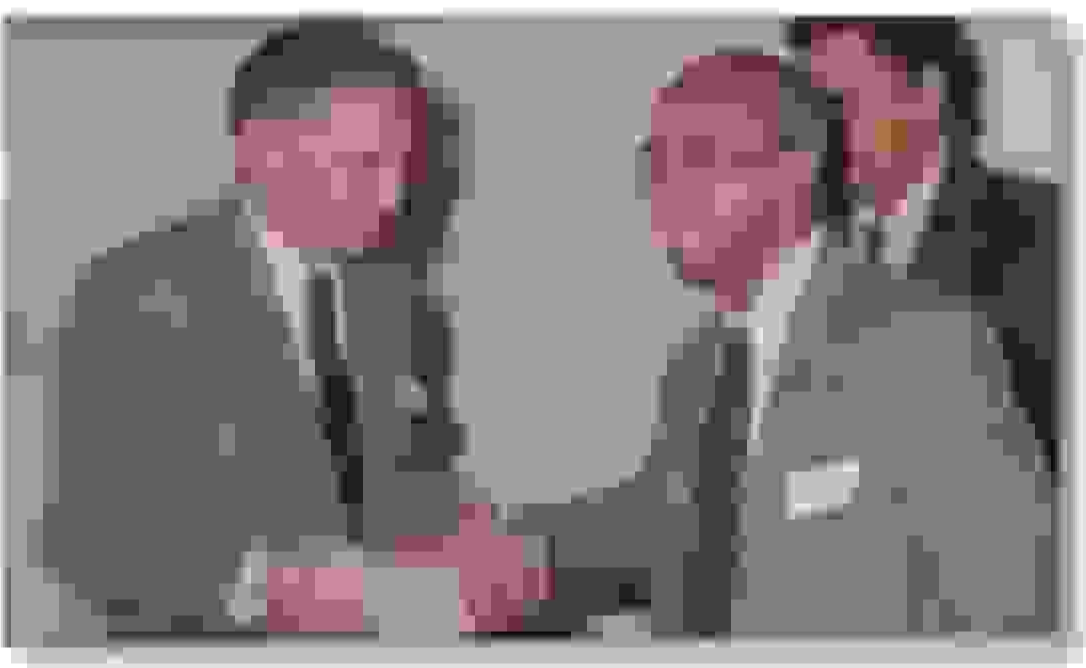
Professor Surinder Mohan Tuli, fondly known to all of us as Dr SM Tuli did his initial medical education from GMC Amritsar. He was introduced to the expanding surgical branch of Orthopaedics by stalwarts of his time like Prof Grewal, Prof Babu Sankaran & Prof Duraiswami. After obtaining his FRCS from Delhi University in1968 he was awarded National and International Fellowships. On his return he decided to shift his base to Banaras to set up the Orthopaedic Department at BHU. Here he expanded his Clinical, Academic & Research work which received National and International recognition.

Figure.1 Young Prof.Tuli with his mentor Prof Duraiswami

He extensively studied & researched many of the Orthopaedic situations more prevalent in India especially Musculo – Skeletal Tuberculosis besides other Neglected Orthopaedic Ailments like Infected Non Unions, Tom Smith Hips, Recurrent Shoulder Dislocations to name a few. He also established a Bone Bank at BHU, to provide Allogenic Bone Grafts for Bone defects and Benign Paediatric tumours.

His major contribution has been the evolution of 'Middle Path Regime' for Tuberculosis & Immune Potentiation for MDR TB. He taught many young Orthopaedic Surgeons the art to do Antero Lateral Decompression for treating Advanced Compressive Myelopathy resulting in Grade 4 Paraplegia in the TB spine.

Dr SM Tull became a regular Participant Speaker Faculty at Almost All events of IOA. Through his easy to Understand lectures he imparted Scientific Credible, Imbibe-able knowledge & Skills which could be 'Replicable in the Hands of Any other Average Orthopaedic Surgeon.' He worked as the Editor of the Indian Journal of Orthopaedics with the Banaras Team from 1972 to 1987. He also graced the office of President of the Indian Orthopaedic Association in 1984. He with his team at BHU even organised IOACON at Banaras.
After completing a stellar inning at BHU, he shifted to UCMS and GTB Hospital in 1988 and set up the Orthopaedic Department there along with starting its Post Graduate curriculum of the highest standard and also setting up a clinically applicable Bone Bank.



Pic 2 : Prof Tull with another stalwart of Spine Prof TK Shanmugasundaram

Dr. SM Tuli has over 200 publications and contributions in many textbooks of Orthopaedics besides authoring the book "Tuberculosis of the Skeletal System" updated to the 6th Edition.

Professor S M Tuli even after over 06 decades of professional career is ever keen for new scientific learnings & uses the phrase 'We are All students of Orthopaedics'. He has had a profound impact on many Generations of Orthopaedic Surgeons who trained and learned from him the 'Art of treating Bone problems Biologically'

(Pic 5 Prof Tuli with Prof Mishra & Prof SS Yadav)

(Pic 3 Prof Tuli with Prof Sudhir Kumar and Prof Surya Bhan)

Pic 6 Prof Tuli 'The Teacher'

(Pic 4 Prof Tuli with Prof SC Goel)

(Pic 7 Prof Tuli at BOACON 2021)

CLINICAL CASE OF THE MONTH

CENTRAL FRACTURE DISLOCATION OF THE HIPIN A 73 OLD OSTEOPOROTIC FEMALE MANAGED BY COMPLEX PRIMARY TOTAL HIP REPLACEMENT: A RARE CASE REPORT

DR SAMREEN SHAHZAD | DR HAMDAN MISHRA | DR ANSHIT UPPAL

HIGHLIGHTS

- Central Fracture dislocation of the Hip is a rare condition requiring complex care and management and prolonged rehabilitation to achieve desired results.
- This case report presents a 73 year old osteoporotic female with a history of trivial slip and fall at home leading to insufficiency Central Fracture dislocation of Left Hip.
- Management of such injuries with Primary complex Total Hip Replacement has not been described well in literature
- In our case, we performed primary Complex total hip replacement Surgery using Head Allograft along with a Mesh cage construct to rebuild medial acetabular wall support.

CASE PRESENTATION:

A 73 years old female presented to our emergency department on 05th August 2021 with complaints of pain over left hip and inability to bear weight over left lower limb following a history of slip and fall at home 3 weeks back. The patient was initially managed conservatively at her hometown with below knee skin traction and bed rest for 3 weeks. On examination she was found to have swelling and localized tenderness over her Left hip joint with external rotation deformity, true shortening of left lower limb (around 2cms), and restricted hip joint movements. Distal neurovascular status of the left lower extremity was found to be intact. The patient was also on regular treatment for Type II Diabetes Mellitus, Hypertension, Hypothyroidism and dyslipidemia.
The patient was evaluated with plain radiographs of the pelvic region along with a CT scan of the left hip with 3D Reconstruction. It revealed discontinuity of the ileo pectineal line with comminuted fracture of the quadrilateral plate and cranio-medial protrusion of the femoral head. The posterior column was found to be intact (Fig 1, Fig 2, Fig 3.)

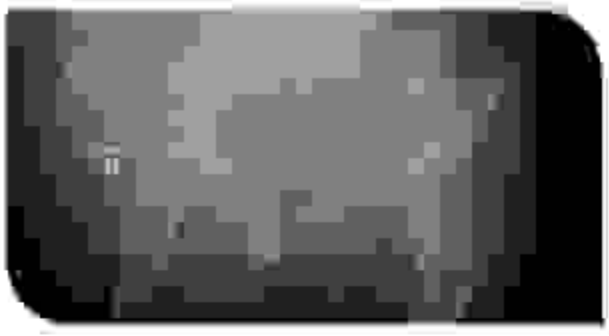


Fig 1: Judet oblique view.

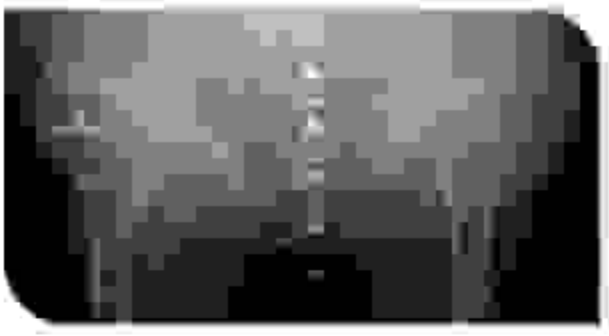


Fig 2: Plain AP Radiograph Pelvis with both Hip showing disruption in ileo pectineal line with craniomedial protrusion of femoral head and fractured acetabular wall

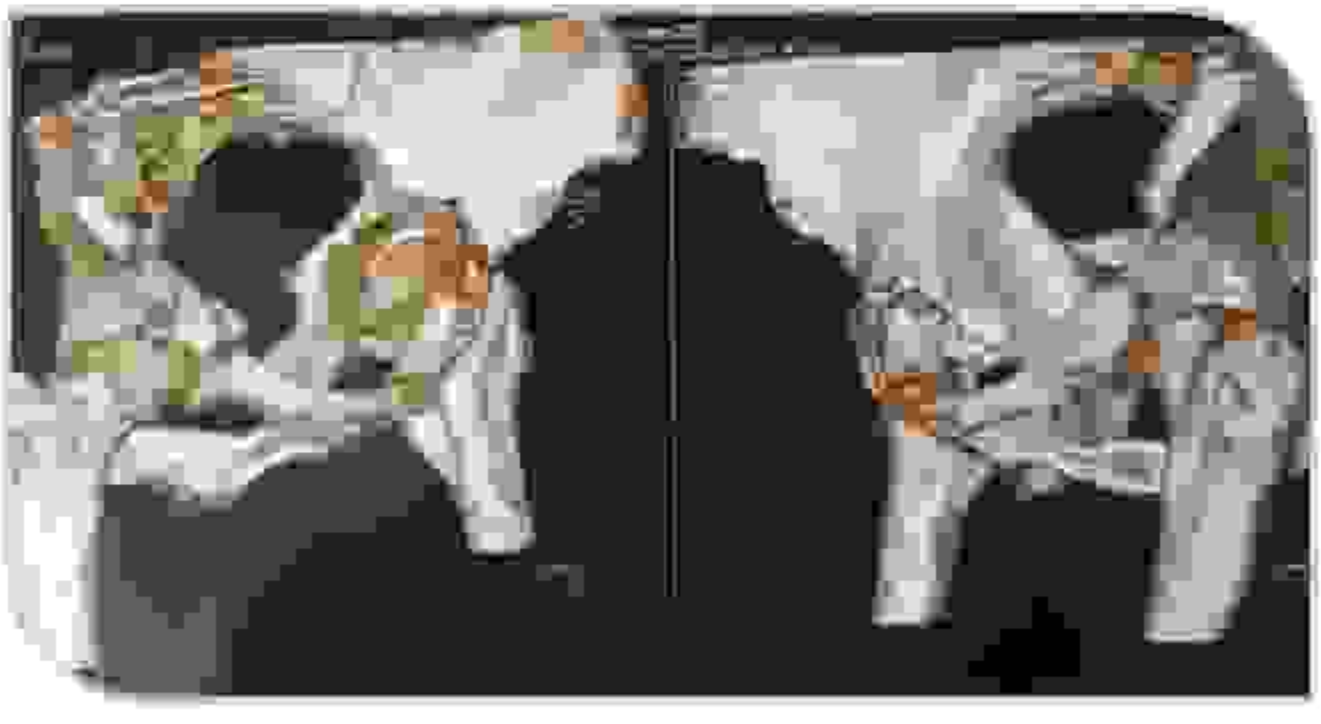


Fig 3: 3D CT Image (Judet View)

The patient was planned for Primary Total Hip Replacement. Left Hip was exposed using Modified Hardinge's approach which is used routinely in all our Hip cases. Dissection was done in layers to reach Left Hip joint. Gentle traction was given to lateralize, dislocated femoral Head and held in place by a surgical assistant. The femoral head was dislocated anteriorly. Femoral Neck Osteotomy level was marked approximately an inch from lesser trochanter and cut was made using an oscillating saw. The fractured acetabulum was then exposed after gaining adequate exposure. The medial acetabular wall was reconstructed using morsellized Impacted femoral head autograft composite along with medial wall mesh. After this acetabular cementless MRS titan shell/ring size 48mm (Peter Brehm) ™ **(Fig 4)** was used and fixed with multiple screws **(fig 5)** followed by implantation with the acetabular cup **(fig 6)** size 48/28 and liner. Femoral medullary canal preparation until size 9 was done. Stability of the hip joint was confirmed intraoperatively and final femoral stem implantation along with head was eventually performed **(fig 7).** The reduction and stability of the hip joint were rechecked and confirmed under the image intensifier. **(Fig 8,9,10)**

Fig 4: Acetabular Ring MRS Titan shell (Peter Brehm)

Fig 5 Petal brehm shell fixed with multiple screws

Fig 6: Uncemented acetabular cup placed over the shell

Fig 7 Final implantation of stem along with head

Fig 8, Fig 9,10: Intraoperative image intensifier images showing a well reduced stable Hip prosthesis with mesh-cage assembly to reconstruct the medial acetabular wall

Postoperatively the patient was started on non weight bearing mobilization with the help of a walker for 2 months. Gradual Toe touch weight bearing mobilization was started from 2 months onwards progressing to full weight bearing from 3 months (Fig 11). For osteoporosis she was started on a daily subcutaneous injection of Teriparatide (20mcg) which will be continued for 2 years.

Fig 11: Clinical pictures of patient mobilized with the help of a walker

Fig 12: 3 months post-operative plain AP radiograph Pelvis with both hips showing medial acetabular wall consolidation with stable prosthesis in situ.

Discussion:

Challenges in managing such fractures were:

- Restoring Hip Biomechanics (vertical/horizontal offset)
- Management of bony defect
- Osteoporosis

Central fracture dislocation of hip results from axial loading of the femur on abduction. Following the impact force transmits from the femoral head to the acetabulum columns. Therefore most of the injuries are associated with wall and columns fractures. The amount of medial migration depends upon the severity of the injury. In most cases open reduction and internal fixation are indicated. However, in old patients where the chances of failure/ nonunion are high especially cases with significant displacement osteoporosis and severe comminution primary hip arthroplasty may be considered. It helps in early mobilization and reduces the risk of prolonged immobilization. Intraoperatively bone defect reconstruction is the most challenging step. Correct assessment of the fracture using various imaging techniques is of utmost importance. In our case there was medial wall comminution with anterior column fracture. It was reconstructed using autograft with mesh cage and acetabular column stabilization was done using the acetabular ring and cup construct. Another option would have been to use a Trabecular metal acetabular revision system (cup cage) construct like in type 3 acetabular defect of acetabulum[1]. This was a feasible option but would have made it a very costly affair. Another option for reconstruction was to use Burch Schneider cage with a cemented cup, but the use of cement would have affected bony union. So, in this case, we used a Peter Brehm cage followed by an uncemented cup which was highly stable in the immediate post op period, modular, helped in good bone healing, and cost effective.

Park et al[2] reported a 75 year patient who had an acetabular fracture and medial displacement of the femoral head. Following the femur head extraction the acetabular bone defect was assessed and it was filled with bone graft. Acetabular reconstruction was done with an acetabular roof reinforcement ring with a hook (ARRH). The patient was kept non-weight bearing for 6 weeks and then gradually weight bearing was started. Full weight bearing was started after 3 weeks. At 1 year follow up there was no pain or limping.

Prabhakar et al[3] published a case of central fracture dislocation for which internal fixation was done using multiple cannulated screws. At 3 months serial x rays showed gradual hardware failure and displacement of the fracture.

Primary Hip Arthroplasty is helpful in elderly patients with a comminuted acetabular fracture with central dislocation. Our case report highlights the importance of timely diagnosis of postmenopausal osteoporosis to prevent such injuries in elderly females. Though arthroplasty, as performed in our case report, seems to yield promising results both functionally and radiographically the long term outcome still needs to be confirmed in order to thoroughly prove the efficacy of this procedure

References:

1. Rajesh Malhotra et al. Trabecular metal acetabular revision system: 'cup-cage' construct to address the massive acetabular defects in revision arthroplasty. Indian J Orthop. 2012 Jul;46(4):483-6
2. Kyung Soon Park et al. Acetabular central fracture dislocation after generalized seizure during lumbar myelography with Iohexol. Case Rep Orthop. 2013;2013:
3. Gautham Prabakar et al. Threading the needle: intrapelvic displacement of a femoral neck fracture through the obturator foramen. Case Rep Orthop. 2018;2018:

ORTHOPAEDIC HUMOUR

BY THE BONE NURSES

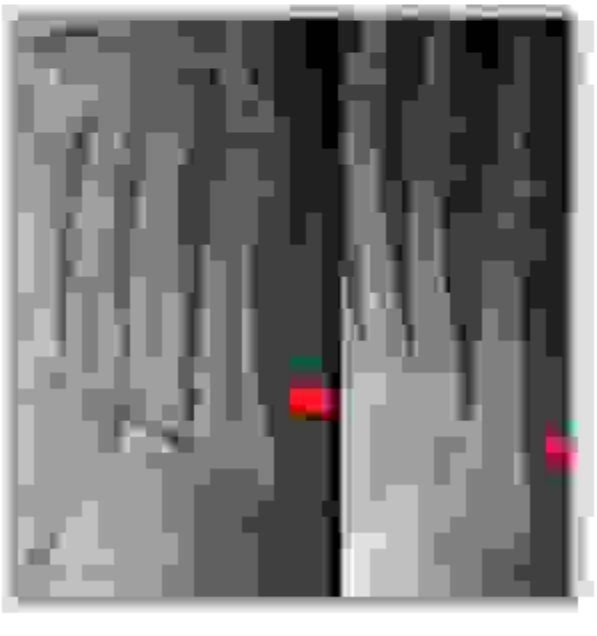
Que. How do you hide a five hundred rupees note from an orthopedic surgeon?

Ans. Put it in an Orthopaedics textbook!

ORTHOPAEDIC QUIZ

BY DR. [illegible]

21-year-old professional Football player injures her foot while walking down a flight of stairs. has pain & inability to bear weight on her injured foot. He has no plantar ecchymosis but does have tenderness over her lateral foot. Xrays of her foot is in Fig. What is the best form of Management



1 Hard-soled shoe
2 Cast immobilization
3 Modified Brostrom procedure
4 Intramedullary screw fixation
5 Operative repair of the lisfranc fracture

Answer 4 Intramedullary screw fixation

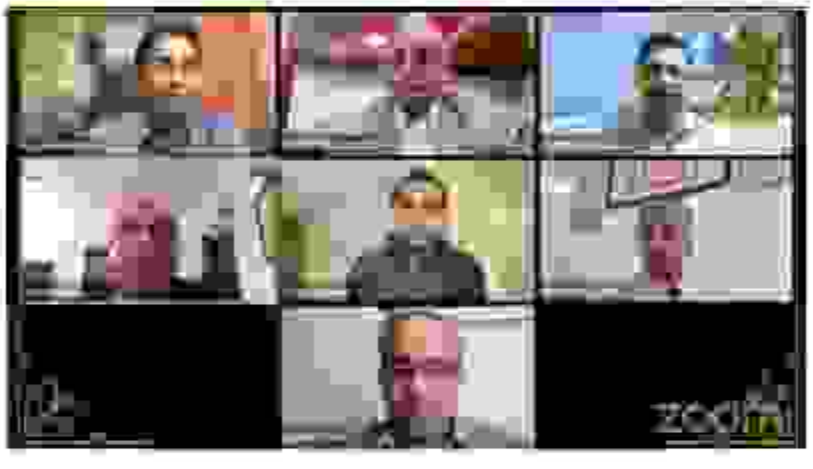
Explanation: 5th metatarsal is divided into 3 zones. Zone I is an avulsion fracture, zone II is described as a jones fracture and zone III is a proximal diaphyseal fracture. Nonunions are more common with fractures in zones II and III. Nondisplaced zone 2 injuries, or Jones fractures, may also be treated conservatively with 6 to 8 weeks of non-weight bearing in a short leg cast. The physician may advance weight-bearing status as radiographic evidence of bone healing appears. Indications for surgical interventions include the high-performance athlete, the informed patient who elects to proceed with surgical treatment, or displaced fractures. There are many forms of surgical interventions, including intramedullary screw fixation, tension band constructs, and low profile plates and screws. Surgical management of high-performance athletes minimizes the risk of nonunion and prevents prolonged restriction from physical activity.

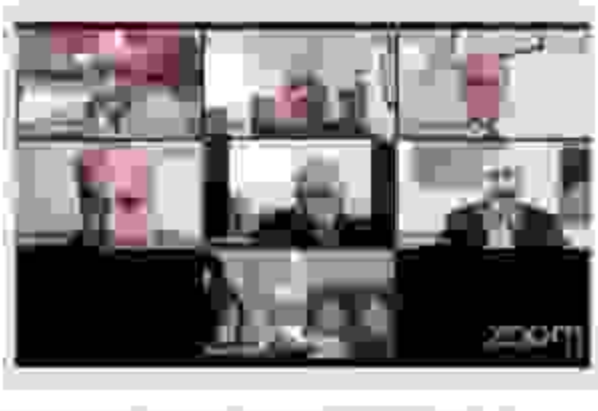
DOA EVENTS

PAST EVENTS

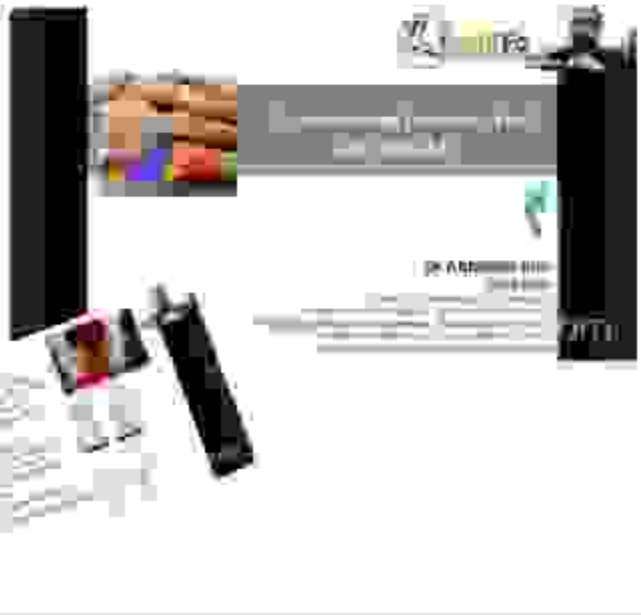
DOA TRAUMA SERIES: EPISODE 2

19TH FEBRUARY 2022
THEME: HEEL TO TOE - DECODING FOOT INJURIES
ONLINE SYMPOSIUM ON ZOOM PLATFORM WITH ORTHO-TV
8.00 PM -9.30PM



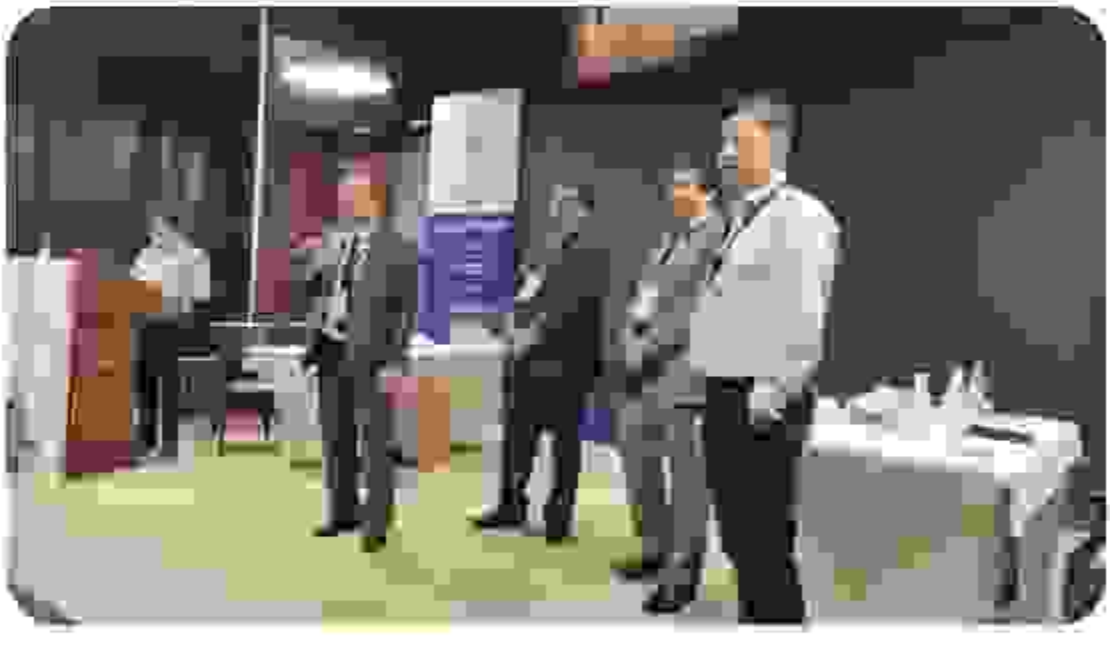


Optimization of Polytrauma in Foot and Ankle Injuries



DOA FIRST QUARTERLY MEET

27TH FEBRUARY 2022
THEME: KNEE ARTHROPLASTY
VENUE: HOTEL LE MERIDIAN NEW DELHI
10AM TO 1.30PM

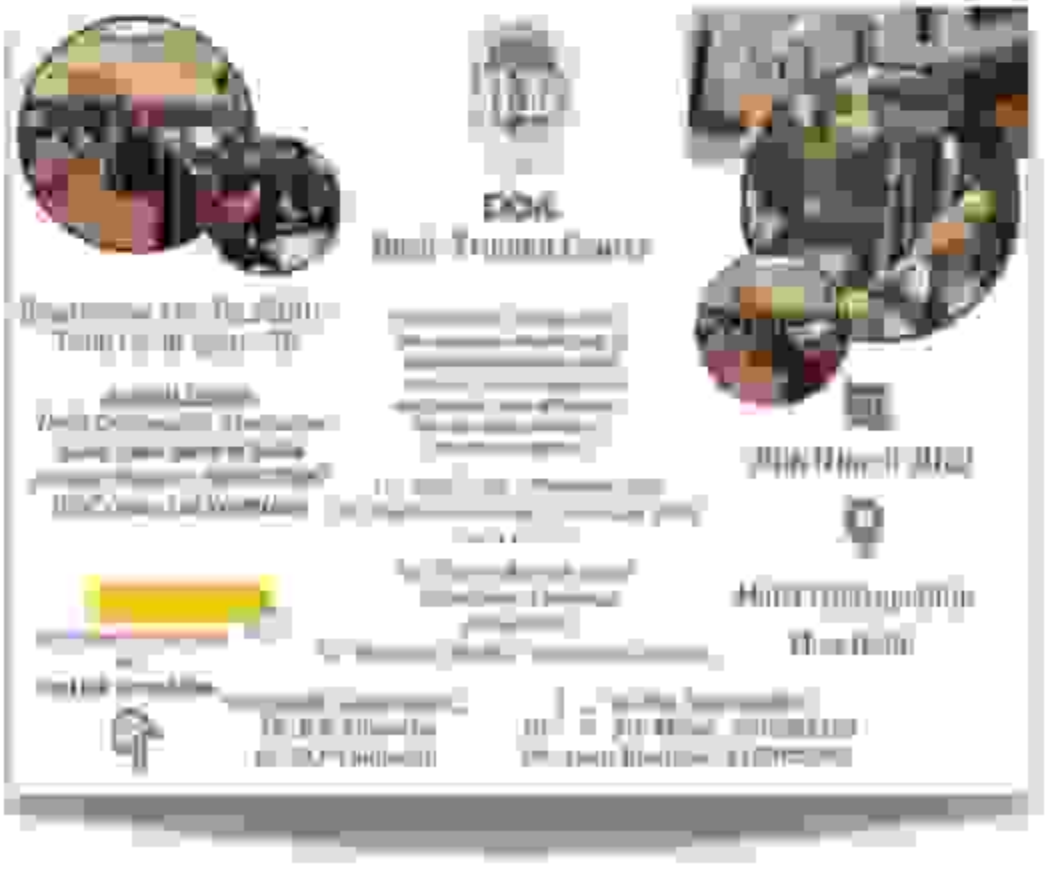


DOA EVENTS

UPCOMING EVENTS

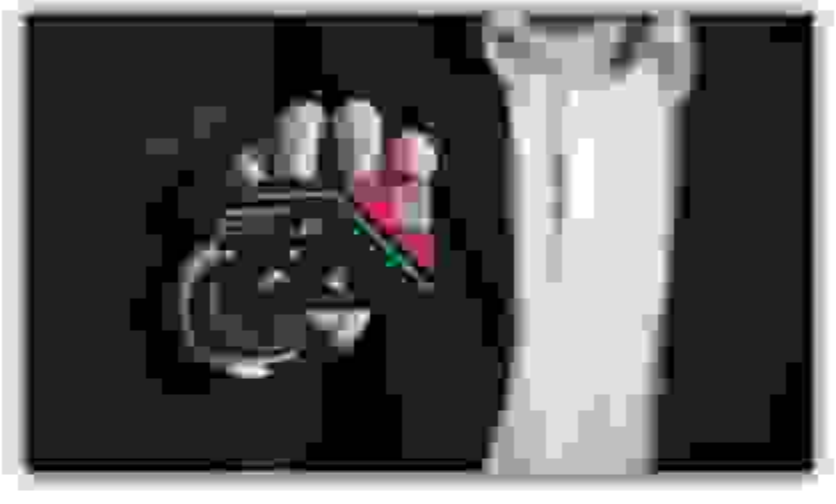
DOA BASIC TRAUMA COURCE

20TH MARCH 2022
VENUE: HOTEL METROPOLITAN NEW DELHI
ORGANISING CHAIRPERSON: DR. VINEET KUMAR ARORA



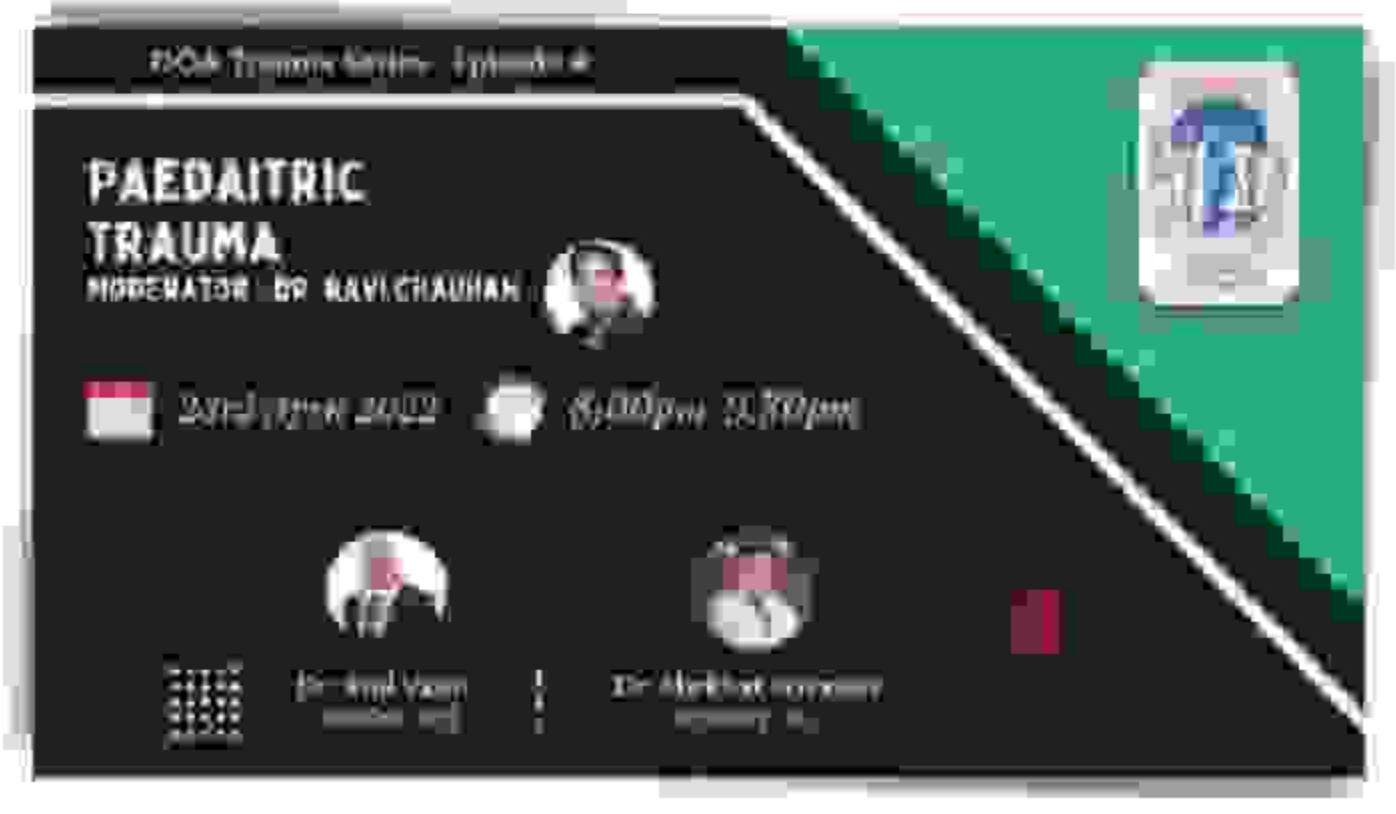
DOA TRAUMA SERIES: EPISODE 3

26TH MARCH 2022
THEME: PROXIMAL FEMUR FRACTURES
ONLINE SYMPOSIUM ON ZOOM PLATFORM WITH ORTHO-TV
8.00 PM -9.30 PM
MODERATOR: DR SAMARTH MITTAL



DOA TRAUMA SERIES: EPISODE4

23RD APRIL 2022
THEME: PAEDIATRIC TRAUMA
ONLINE SYMPOSIUM ON ZOOM PLATFORM WITH ORTHO TV
8.00 PM -9.30 PM
MODERATOR: DR. RAVI CHAUHAN



DOA SECOND QUARTERLY MEET

24TH APRIL 2022
THEME: **SHOULDER, WRIST, HIP AND KNEE**
VENUE: HOTEL SIDDHARTHA NEW DELHI
9.00 AM -4.00 PM


THE INDIAN ORTHOPAEDIC ASSOCIATION
सत्यमेव जयते
DELHI CHAPTER