

HEALTHZONE

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Focus on Critical Care

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66— Message from the Chairman & Managing Director



Dr. Vikram SiddareddyChairman & Managing Director

The Critical Care Department of United Hospital is truly exceptional in the level of care and attention they provide to their patients. The team of doctors, nurses, and support staff are highly skilled and dedicated, always going above and beyond to ensure the best possible outcomes for their patients. From complex surgeries to life-saving procedures, the Critical Care Department of United hospital is well-equipped to handle even the most challenging cases. Their commitment to providing the highest quality of care is truly praiseworthy.

ISSUE HIGHLIGHTS

Polytrauma:

A Multidisciplinary Approach

- Dr. Chandramouli B MBBS, MS (Ortho),
- Dr. Sagar Srinivas K MBBS, MD (Anaesthesiology)

Perioperative Vigilance Equally Reduced Risk

- **Dr. Sagar Srinivas K** MBBS, MD (Anaesthesiology)
- Dr. Amith . P. Shetty MBBS, MS (Orthopaedics)



Message from the Executive Director



The Department of Critical Care is a vital component of the hospital's response to emergencies and disasters The department specializes in the management of patients who are critically ill or injured and require specialized medical attention. In this issue we present two patients who had a very good clinical outcome due to timely and appropriate intervention by our skilled critical care team.

Dr. Shantakumar MurudaExecutive Director

Polytrauma:

A Multidisciplinary Approach



Dr. Chandramouli B

MBBS, MS (Ortho)

Lead Consultant & Head

of Department Orthopaedics

Dr. Chandramouli B is a Senior Orthopaedic Surgeon, with a rich experience of 28 years in the field of orthopaedic mainly specialized in Joint Replacement Surgeries. This includes - Knee, Hip, and shoulder involving Primary Joint (in Arthritis) and Revision joint (Replacement of Worn out Joint Implants) surgery. He is also specialized in Complex Trauma and Fracture Management with Complex Trauma Surgical Management. His diligence in providing patients the best medical care has resulted in creating great impact in the treatment. Following an ethical approach and treating his patients with commitment is the mainstay of Dr. Chandramouli's career:





Dr. Sagar Srinivas K

MBBS, M.D (Anaesthesiology), FIPM

Consultant Anaesthesiologist,

Intensivist & Interventional Pain Physician

Dr Sagar Srinivas K works as a Consultant in the Department of Anaesthesiology, Critical Care & Pain Medicine at United Hospitals. With 7 years of experience in the field, he has gained expertise in performing procedures using video laryngoscopes and flexible bronchoscopes for difficult intubation; and use of ultrasound to perform procedures of various nerve blocks, compartment blocks, central and peripheral venous cannulations, arterial cannulation, etc. He has worked with many eminent hospitals, where he has been exposed to anaesthesia management of obstetrics, general surgery, orthopaedics, ENT, ophthalmology, once surgery, plastic surgery, paediatric surgery, surgical gastroenterology, neurosurgery, urology, faciomaxillary surgery, cardiothoracic surgery, critical care & postoperative care. He is also trained in perioperative case management of all high-risk cases.



26 years male, presented to our hospital with alleged h/o RTA sustaining injury to chest, abdomen, pelvis. He was initially taken to nearby hospital where initial resuscitation & CT was done.

CT thorax showed B/L multiple rib fracture with lung contusion, pneumo-hemothorax, left clavicle fracture. CT abdomen showed peri-splenic hematoma, left pelvic ramus fracture & hematoma. CT Brain was normal.

On admission to ICU he was conscious, oriented, able to move all 4 limbs, CCT & PCT +ve. Vitals-Pulse: 130bpm, BP:90/60mmHg, SpO2: 92% with 15L NRBM, RR: 30cpm. On examination B/L reduced breath sounds.

USG thorax screening showed B/L pneumo-hemothorax, IVC 0.8 cm collapsing completely. He later worsened with increasing RR & desaturation. Pulmonology & thoracic surgeon consultation was done & B/L ICD inserted. ABG showed Type 1 RF with severe ARDS. He was also started on NIV. As condition still worsened; after discussing with relatives, intubation & mechanical ventilation was started.

He was on fluid resuscitation, Meropenem, nebulization, bronchodilators, sedation/paralysis, analgesics, mechanical thromboprophylaxis, physiotherapy, RT feeds & other supportive care. He showed gradual improvement & ARDS recovered over the next 2 days. However he started to have clots in endotracheal tube & blockage on 3rd day of ventilation, hence tube was changed with tube exchanger. He had 2 other similar episodes over the next 12 hours. Bronchoscopy was done on the same day which showed multiple clots at carina & B/L bronchi; all clots suctioned & BAL was done & cultures sent. Blood, ET & BAL cultures were negative. As WBC counts were increasing & s.procalcitonin was high, Inj Polymyxin was also started. He gradually recovered & was weaned from ventilator. He was extubated to NIV. B/L ICD removed.

He underwent left clavicle ORIF & plating under GA which was uneventful. POD-0, he had c/o left leg pain, on examination had calf tenderness, hence venous doppler was done which showed left sided DVT. Cardiology & vascular surgery opinion taken & was started on anticoagulation. 2D echo done was normal & showed no features suggestive of pulmonary embolism.

He was discharged on POD-5 with oral anticoagulation in a hemodynamically stable condition

A multidisciplinary approach in ICU care significantly reduces morbidity & mortality in poly-trauma patients.

Perioperative Vigilance

Equals Reduced Risk



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Dr. Amith. P. Shetty

MBBS, MS (Orthopaedics)

Consultant Orthopaedic Surgeon

(Trauma, Arthroscopy, Arthroplasty

& Spine Surgeon)

Dr. Amith P. Shetty is a compassionate Orthopedic Surgeon with over 9 years of experience in the field. He is known for offering superior care to patients suffering from a broad spectrum of musculoskeletal conditions, ranging from mild to complex. He adheres to high standards of quality and safety while performing any procedure and holds a special interest in arthroplasty and arthroscopy.

77 years female presented with history of fall at home with Right Femur Inter-Trochanteric fracture requiring Proximal Femoral Nail.

Co-morbid conditions: Ischemic Heart Disease (post angioplasty), Hypertension, Type-2 Diabetes, Seizure disorder.

Pre-operatively patient had another episode of Non-ST elevation myocardial infarction along with paroxysmal arrhythmia. 2D echo showed satisfactory cardiac function. Other investigations revealed patient had developed sepsis, acute kidney injury (AKI), uncontrolled sugar levels, anemia, dilatation of large bowel (Ogilvie syndrome).

Patient's relatives were advised to undergo cardiac evaluation & treatment, followed by orthopedic surgical intervention. But the relatives wanted surgical intervention initially followed by cardiac evaluation to avoid the patient being bedridden for long.

Pre-operative concerns: Acute myocardial infarction (MI) with paroxysms of arrhythmia, sepsis, septic/cardiogenic shock, anemia, acute kidney injury, long bone fracture, uncontrolled sugar levels, elderly with multiple co-morbidities.

Pre-operative optimization: Physician & cardiology consultations were done for optimization of her clinical status. Heparin, broad spectrum antibiotics, inotropic support, blood transfusion, insulin, insertion of flatus tube, analgesics and other supportive care.

Anaesthesia Concerns:

- $1. Cardiovas cular instability due \, to \, acute \, MI, septic/cardiogenic \, shock, a nemia.$
- 2. Limited analgesic options due to AKI (NSAIDs contraindicated), dilatation of large bowel (Opioids contraindicated).
- 3. Aspiration risk due to pseudo-obstruction (dilatation of large bowel).



- 4. Requiring muscle relaxant free General Anaesthesia (GA) technique to avoid administration of Neostigmine (neuromuscular paralysis reversal agent) which can cause coronary vasospasm, arrhythmia.
- 5. Anemia with anticipated blood loss more than $500\,\mathrm{ml}.$
- 6. Elderly with multiple co-morbidities.

Anaesthesia Technique:

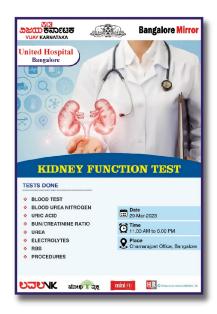
- 1. Internal Jugular Central venous catheter & Radial artery canulation
- 2. GA with cardio-stable induction agent (Etomidate) without opioids and muscle relaxant using I-GEL (2nd generation Laryngeal Mask Airway).
- 3. Analgesia with Ultrasound guided nerve blocks and paracetamol.
- 4. Nor-adrenaline infusion for ongoing septic/cardiogenic shock.
- 5.Stable hemodynamics intra-operatively with minimal surgical blood loss, not warranting blood transfusion.
- 7. At the end of surgery, patient shifted to ICU on oxygen with face mask for further post-operative care.

Post operative ICU care continued & patient was discharged on POD-3 to a cardiac centre for further cardiac evaluation & management.

Good peri-operative ICU care allows early identification & management of critical illnesses especially in elderly patient care allowing for early recovery & lesser morbidity/mortality.

Out Reach Programs

United hospital conducted a camp in association with **Vijay Karnataka** to screen participants for **Good Kidney Health**













United Hospital Jayanagar, Kidney Health Camp

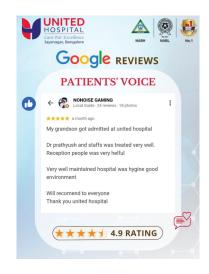
Patient's Voice





















NABH

No.1





Our Centres

Bangalore

- United Hospital, Jayanagar
- United Specialty Clinic, JP Nagar
- Matoshree Kidney Stone Center, HSR Layout

Gulbarga

- **United Hospital**
- **UH** Annex
- United Diagnostics

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