VOLUME 6
NUMBER 5
2024

Malaysian Journal of Emergency Medicine

Supplementary Issue

MALAYSIA TRAUMA CONFERENCE 2024

REALISING THE VISIONI I EMBRACING THE WISDOM

Poster Abstracts

MASCOT

MALAYSIAN SOCIETY FOR CARE OF TRAUMA
ADVANCING TRAUMA CARE

MALAYSIAN SOCIETY FOR CARE OF TRAUMA
www.mascot.org.my

The Official Journal For
COLLEGE OF EMERGENCY PHYSICIANS
Humasnistics Care When It Matters Most.....
www.m-jem.com

ORGANIZED BY

JABATAN KECEMASAN & TRAUMA
HOSPITAL SUNGAI BULOH

MALAYSIAN SOCIETY FOR CARE OF TRAUMA

JABATAN KECEMASAN & TRAUMA
HOSPITAL PORT DICKSON

IN COLLABORATION WITH

COLLEGE OF EMERGENCY PHYSICIAN
ACADEMY OF MEDICINE OF MALAYSIA

COLLEGE OF SURGEONS
ACADEMY OF MEDICINE OF MALAYSIA

ACADEMY FOR SILENT MENTOR

KUALA LUMPUR
TRAUMA CARE SOCIETY

MALAYSIAN ADVANCED
MUSCULOSKELETAL TRAUMA SOCIETY

MALAYSIAN SOCIETY OF
INTERVENTIONAL RADIOLOGY

MALAYSIAN SOCIETY OF
NEUROANAESTHESIOLOGY AND NEUROCRITICAL CARE

MALAYSIAN SOCIETY OF PLASTIC
AND RECONSTRUCTIVE SURGERY

MALAYSIAN ASSOCIATION OF
REHABILITATION PHYSICIANS

PERSATUAN TRANSFUSI
DARAH MALAYSIA

PERTUBUHAN TORASIK MALAYSIA

CHAIRMAN OF 2ND MALAYSIA TRAUMA CONFERENCE

Dr Shah Jahan Bin Mohd Yussof
Consultant Emergency & Trauma Physician
Hospital Sungai Buloh

CHAIRMAN OF SCIENTIFIC COMMITTEE

Dr Rossman Bin Hawari
Consultant Emergency & Trauma Physician
Hospital Sungai Buloh

CO-CHAIRMAN OF SCIENTIFIC COMMITTEE

Dr Ahmad Ibrahim Bin Kamal Batcha
Consultant Emergency & Trauma Physician
Hospital Kuala Lumpur

ABSTRACT COMMITTEE

Dr Mohd Amin Bin Mohidin
Consultant Emergency & Trauma Physician
Hospital Sultanah Aminah, Johor

Dr Shamila Binti Mohamad Ali
Consultant Emergency & Trauma Physician
Hospital Kuala Lumpur

Dr Rathini Inthiran
Emergency and Trauma Physician
Hospital Kuala Lumpur

Dr Nurul Azlean Norzan
Emergency Physician & Trauma Fellow
Hospital Sungai Buloh

Dr Natalie Chew Bee Kwan
Emergency Physician & Trauma Fellow
Hospital Sungai Buloh

Dr Amirah Abd Rasid
Emergency Physician & Trauma Fellow
Hospital Sungai Buloh

Dr Yeoh Chun Chiat
Emergency Physician & Trauma Fellow
Hospital Sungai Buloh

Dr Teoh Aik Poey
Emergency Physician & Trauma Fellow
Hospital Sungai Buloh

Dr Seri Rohayu bt Noew Hanzah@ Mohd Arif
Emergency Physician & Trauma Fellow
Hospital Sungai Buloh

COPY EDITORS

Dr Siti Nurliana Binti Zulkefli
Medical Officer, Hospital Sungai Buloh

Dr Thivya Mathi A/P Sina Rajoo
Medical Officer, Hospital Sungai Buloh

Malaysian Journal of Emergency Medicine
Volume 6 (Number 5) 2024
2nd Malaysian Trauma Conference 2024 (MTC 2024) 2nd - 4th October 2024
AnCasa Resort Port Dickson by AnCasa Hotels & Resorts

ABSTRACTS

MTC 2024 POSTERS A01

SCIWORA (Spinal Cord Injury Without Radiological Abnormality)

MH Hasim[1,2], MF Mokhtar[2]

[1] *Hospital Sungai Buloh, Selangor, Malaysia*
[2] *Fakulti Perubatan Universiti Teknologi MARA, Selangor, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Spinal Cord Injury Without Radiographic Abnormality (SCIWORA) is characterized by a clinical presentation of traumatic neurological deficits without corresponding pathological findings on X-ray or CT scans. This condition is most commonly observed in pediatric populations.

CASE DESCRIPTION

A 14-year-old male motorbike rider, who was wearing an improperly secured helmet during a collision with another bike, experienced a brief loss of consciousness and retrograde amnesia. Despite these symptoms, his Glasgow Coma Scale (GCS) score remained full. Subsequently, the patient developed paraplegia with paresthesia in both lower extremities, in the absence of neurological, spinal, or hemorrhagic shock. Neurological examination revealed symmetrical loss of sensation and motor power in both lower limbs, starting from the L1 level, consistent with upper motor neuron lesion characteristics. A CT brain scan showed no evidence of intracranial hemorrhage. A thoracolumbar CT scan revealed right transverse process fractures at T4 and T7. However, an MRI of the entire spine demonstrated only interspinous soft tissue edema from C7 to T3, indicative of a hyperflexion sprain injury, without signs of spinal cord injury. Due to interspinous soft tissue edema and spinal bone fractures without spinal cord involvement, a multidisciplinary team, including spinal and neuromedical specialists, decided to manage the patient as a case of SCIWORA. The patient was treated conservatively with a high-dose dexamethasone regimen, resulting in significant neurological improvement, allowing discharge with a minimum motor power of 3/5.

DISCUSSION

SCIWORA typically results from hyperextension or hyperflexion injuries, which can temporarily occlude spinal arteries, leading to ischemic events. In this case, MRI findings confirmed that the patient suffered a spinal hyperflexion sprain injury, correlating with the observed clinical symptoms.

CONCLUSION

The administration of steroids was the optimal treatment in this case, as it effectively reduced traumatic inflammatory edema in the spinal soft tissues, improving spinal perfusion and facilitating recovery.

CORRESPONDENCE

Muhammad Hafiz Bin Hasim
Hospital Sungai Buloh,
Jalan Hospital,
47000 Sungai Buloh,
Selangor, Malaysia.
+6019-3841889
Email: arbovir85@gmail.com

MTC 2024 POSTERS A02

Plastic Peril: An Unusual Penetrating Anterior Neck Trauma In A Motor Vehicle Accident

KH Yong[1], WL Sia[2]

[1] *Hospital Sungai Bakap, Pulau Pinang, Malaysia*
[2] *Hospital Seberang Jaya, Pulau Pinang, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Penetrating neck trauma encompasses 5% of traumatic injuries. Although infrequent, these wounds are significant due to surrounding vital structures and potential complications.

CASE DESCRIPTION

A 20-year-old gentleman presented to a district hospital, following a motor vehicle accident (MVA). He was alert on arrival, with no signs of respiratory distress. A sharp object measuring 4cm x 6cm was embedded in Zone 2 of his anterior neck. There was no active bleeding but crepitus was present. Air entry was equal for bilateral lungs, and there was no desaturation under room air. He was transferred to a referral centre for further management. CT Cervical revealed soft tissue hematoma and air pockets at the right anterolateral neck, with multiple foreign bodies (FB) within. Flexible scope examination showed a patent airway with no laryngeal injury. He underwent wound exploration in which 1 plastic fragment and 2 pieces of small glass were removed. He was discharged well after 6 days.

DISCUSSION

Management of penetrating neck injuries is guided by the 'platysma algorithm'. The presence of crepitus, which is a 'soft sign', indicates that the patient is stable for further imaging to assess the wound prior to surgical exploration. This is because large plastic FB in the neck is easily visible, however smaller glass FB are not immediately seen. Debris from MVA, particularly glass, comprises about 15% of retained FB. Glass measuring ≤2mm may be missed on plain radiographs, such as in this case. Therefore, a CT is warranted as it is able to detect fragments as small as 0.01mm.

CONCLUSION

A CT scan maps out the degree of injury caused by impaled objects in stable neck trauma. This step reduces secondary insult to the neighbouring structures during wound exploration, and ensures complete FB removal in a single attempt.

CORRESPONDENCE

Yong Kang Hao
Hospital Sungai Bakap,
Jalan Besar Sungai Bakap,
Sungai Bakap,
14200 Sungai Jawi,
Pulau Pinang, Malaysia
+6013-4589928
Email: kanghaoy@gmail.com

MTC 2024 POSTERS A04

United At The Forefront: The Critical Role Of A Multidisciplinary Trauma Team In Managing Exsanguinating Pelvic Fractures

Kenny Gene Salvador[1], Benedict Edward Valdez[1], Faith Joan Mesa-Gaerlan[1], Pauline Convocar[1]

[1] *Southern Philippines Medical Center, Davao City, Philippines*

POSTER ABSTRACT

INTRODUCTION

Pelvic fractures, known for their high mortality rates, necessitate a swift and coordinated medical response. Activating a multidisciplinary trauma team is crucial for managing severe injuries, ensuring systematic trauma care, and immediate resuscitation. This case illustrates how a timely, multidisciplinary trauma team response led to the survival of a 33-year-old woman with a life-threatening pelvic fracture.

CASE DESCRIPTION

The patient, a 33-year-old woman, suffered a pelvic injury following a side collision while riding a tricycle. Ejected from the vehicle, she sustained a profusely bleeding wound in her right inguinal area. Immediate prehospital care was provided, and she was transported without prior notification.

Upon arrival, the Emergency Medicine promptly activated a full trauma team. Trauma and orthopaedic surgeons immediately assembled, with alerts sent to the blood bank and operating room for potential massive transfusion and surgery. The patient's haemorrhage from the right inguinal laceration, along with pelvic instability, prompted the initiation of damage control resuscitation measures. Persistent hemodynamic instability necessitated the implementation of the Massive Transfusion Protocol.

After a negative e-FAST exam and confirmation of an unstable pelvic fracture through radiography, angiographic embolization and coiling of arteries stabilized her condition. Subsequent surgeries included applying an external pelvic fixator, hip disarticulation, and right hemipelvectomy. Postoperative care involved hyperbaric oxygen therapy, wound debridement, and pain management. She was discharged after 2 months, recovered and determined to maximize her overall functionality.

CASE DISCUSSION

The swift activation of the trauma team, adherence to protocols such as the Massive Transfusion Protocol, and coordinated teamwork were pivotal in managing this case of unstable pelvic fractures which generally has high rate of mortality and morbidity. The simultaneous application of damage-control resuscitation, massive transfusion, and angioembolization allowed for the stabilization of a high-mortality injury, enabling subsequent definitive surgical repair. The effective use of resources, including interventional radiology for embolization, underscored the team's proficiency and highlighted the critical role of well-coordinated trauma care. This case emphasizes the value of adhering to established protocols and demonstrates how continuous team training and protocol refinement contribute to improving emergency care outcomes.

CONCLUSION

In conclusion, the trauma team's rapid activation served as a catalyst for the timely implementation of life-saving interventions such as damage control resuscitation, massive transfusion, and angioembolization. This cohesive approach was essential in transforming an otherwise fatal injury into a survivable event, underscoring the indispensable role of early trauma team involvement in complex emergency care scenarios.

CORRESPONDENCE

Kenny Gene R. Salvador,
Southern Philippines Medical Center,
Davao City, Philippines
+639564656025
Email: kensalvador24@gmail.com

MTC 2024 POSTERS

A05 A Flip That Turn A Life Forever

Nurul Ulum Ahmad Yusuf[1], Mastura Onn[1], Rashdan Rahmat[1], Noor Hayati Yasmin Nga Timin[1], Maryam Sumaiya Ahmad Termizi[1]

[1]*Hospital Sultan Ismail Johor Bahru , Johor ,Malaysia*

POSTER ABSTRACT

INTRODUCTION

Sport-related neck injury may happen during exercise with the extent of injury may vary from muscle strains to severe life-threatening conditions. Unsuccessful flips can cause a catastrophic injury such as neck fracture which may lead to complete spinal cord injury(SCI) resulting in paralysis or even death.

CASE DESCRIPTION

A 40 year old Malay gentleman was brought to a healthcare facility due to body weakness following unsuccessful backflip attempt by landing with the hyperextended head.He was on vacation with the family member doing a few attempts of backflip on the beach. Post trauma he sustained neck pain and was unable to move all four limbs.He was kept on cervical collar and eventually transferred to tertiary center after successfully securing the airway.. Further assessment revealed that he was quadriplegic with reduced sensation in all limbs. Computed tomography cervical shows there was fracture at the level of cervical 4/5 with cord transection of the spinal cord. He was admitted and proceeded with surgical intervention such as decompression, corpectomy of C5 and anterior cervical plating of C4 and C6 with pyramesh cage.Post operative ,there is no significant improvement in patient's neurological function and he is totally dependent.

DISCUSSION

Spinal protection before reaching hospital is a gold standard to maintain alignment of the cervical spine and to prevent further spinal injury.
This patient developed both shock hence early initiation inotropes after given fluid resuscitation is appropriate.There is significance motor and sensory function improvement if administration of methylprednisolone within 8 hours of injury according to National Acute Spinal Cord Injury Studies (NASCIS) II trial.

CONCLUSION

Resuscitation of life-threatening injury such as hypotension or cardiorespiratory may affect neurologic recovery. Timely intervention and comprehensive care are vital in mitigating the impact of SCI and promoting better patient outcomes.

CORRESPONDENCE

Nurul Ulum Ahmad Yusuf,
Hospital Sultan Ismail Johor Bahru,
8110 Johor Bahru,
Johor ,Malaysia
+6010-7794801
Email: nurululum2107@gmail.com

MTC 2024 POSTERS

A06

A Night That Makes Tomorrow's Headlines

Nurul Ulum Ahmad Yusuf[1], Naazira Hanani Muhammad[1], Mastura Onn[1], Noor Hayati Yasmin Nga Timin[1], Lee Chee Siong[1], Rashdan Rahmat[1], Maryam Sumaiya Ahmad Termizi[1]

[1]*Hospital Sultan Ismail Johor Bahru , Johor ,Malaysia*

POSTER ABSTRACT

INTRODUCTION

The act of terrorism places a unique burden and strain on healthcare facilities and emergency medical services (EMS) in dealing with the complexity of injuries to the victims and intruders.

CASE DESCRIPTION

The nation was shocked when two police officers were killed while another was injured in the line of duty at one of the police stations in Johor during early hours of May 2024. They were attacked by an intruder which was later shot to death. The officers were assaulted by the suspect who was armed with a machete and later confiscated a gun from the police officers. The injured police officer was rushed to hospital with 2 gunshots over the chest and lower abdomen. After a few hours of observation, he developed subcutaneous emphysema and CT thorax revealed the wound trajectory without any bullet or shrapnel . He underwent wound exploration and was noted to have both entry and exit wounds with crooked trajectory between 19 to 26 cm in length. The police officer was admitted under the surgical team before being discharged a week later.

DISCUSSION

Injuries inflicted during terrorist attacks are always unpredictable and may be crude. Prompt treatment of the injury can prevent lethal consequences. Gunshot wounds (GSW) result in diffuse soft-tissue damage, muscle loss, hemorrhage, fracture, and severe pain. Terminal ballistic help us to describe the effect of projectiles on living tissue called wound ballistics and the diversity of the bullet projectile which affect the penetration and the extent of tissue damage.

CONCLUSION

It is an absolute necessity to understand management GSW in view of rising number of GSW injuries which can be complex and pose a challenge to the managing team.chosen in this case due to the severity of the optic nerve avulsion and the family's decision.

CORRESPONDENCE

Nurul Ulum Ahmad Yusuf,
Hospital Sultan Ismail Johor Bahru,
8110 Johor Bahru,
Johor ,Malaysia
+6010-7794801
Email: nurululum2107@gmail.com

MTC 2024 POSTERS

A07

Subcutaneous Emphysema In Life - Threatening Airway Obstruction: A Case Report Of Rare Presentations Of Foreign Body Aspiration In Pediatrics

Nur Liyana Ab Aziz[1], Muhammad Zulhilmi Arifin[1]

[1] *Hospital Sultan Ismail Petra, Kuala Krai, Kelantan*

POSTER ABSTRACT

INTRODUCTION

Tracheobronchial foreign body aspiration in children can present with varying degrees of severity, from mild cases to life-threatening emergencies. The aspiration of pen caps is particularly common among school-aged children and requires prompt intervention to prevent serious complications.

CASE DESCRIPTION

We report a 7-year-old Malay girl with a history of tonsillectomy who experienced choking while playing with her younger brother. She stated that her brother inserted a foreign body into her mouth, leading to bluish discoloration of her lips and vomiting. Upon arrival at the Emergency Department, she exhibited stridor, had an oxygen saturation of 88%, and displayed subcutaneous emphysema in her neck and chest areas. The patient was immediately referred to the Otorhinolaryngology (ORL), pediatric, and anesthesiology teams. Emergency direct laryngoscopy revealed a foreign body lodged in her left main bronchus. Despite multiple removal attempts, the foreign body remained stuck at the cricoid area. The patient was urgently transferred to a tertiary hospital, where bronchoscopy identified the rear part of a pen cap lodged in the right secondary bronchus. Despite further attempts, the foreign body remained lodged at the cricoid narrowing and was ultimately extracted via tracheostomy. The patient was monitored for five days and was discharged in good condition.

DISCUSSION

Foreign body aspiration (FBA) can manifest as coughing, wheezing, recurrent pneumonia, or respiratory distress. Occasionally, FBA presents with subcutaneous emphysema. The narrowness of pediatric airways can lead to significant airway distress if not treated promptly. Bronchoscopy is the preferred method for diagnosing and removing foreign bodies; however, anatomical challenges may complicate the procedure. If bronchoscopy fails, surgical intervention, such as tracheostomy, may be necessary.

CONCLUSION

Subcutaneous emphysema is a rare presentation of FBA. While bronchoscopy is preferred, readiness for surgical intervention is essential if initial attempts fail.

CORRESPONDENCE

Nur Liyana Binti Ab Aziz
Hospital Sultan Ismail Petra,
18000 Kuala Krai,
Kelantan, Malaysia.
+6017-9290280
Email: liyanaaziz@yahoo.com

MTC 2024 POSTERS A08

Can E-Fast Detect A Traumatic Diaphragmatic Hernia?

Vedavyasan D [1], Faqhroll Mustaqim MF [1]

[1] *Emergency & Trauma Department Hospital Pasir Mas, Kelantan, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Traumatic diaphragmatic hernia (TDH) may occur either in blunt or penetrating injury to upper abdominal region. Mortality rate in a TDH related injuries were up to 30% and remains a diagnostic challenge during primary survey. Despite not being a routine examination in Extended Focused Assessment with Sonography for Trauma (e-FAST), we found that ultrasound provides a pivotal role in early detection of this condition.

CASE DESCRIPTION

We present a case of young gentleman presented to emergency department following trauma with complaint of left sided chest and upper abdominal pain. Patient was in respiratory distress, tachycardic with saturation of 80% under room air. Clinically he had tenderness over left lower chest with guarding over left upper abdomen. FAST demonstrated free fluid accumulation over left splenorenal recess and eFAST revealed presence of sliding sign bilaterally without effusion. However, presence of peristaltic movement above left diaphragmatic margin with discontinuity of left diaphragm raised the suspicion of TDH. Urgent chest x-ray demonstrated presence of bowel gas above left hemidiaphragm confirmed the diagnosis. Patient was immediately sent to tertiary centre and urgent CT abdomen revealed ruptured left hemidiaphragm with intrathoracic herniation of abdominal content. Subsequently he underwent urgent exploratory laparotomy with primary repair of diaphragmatic hernia and recovered tremendously. He was discharged on day 15 post trauma.

DISCUSSION

Generally, TDH doesn't have specific signs or symptoms and can only be diagnosed radiologically. Rarely patient may be presented with delayed complication of respiratory failure, strangulation, obstruction and subsequently cardiopulmonary dysfunction. Early sonographic examination provides advantage of dynamic assessment of diaphragm, thoracic cavity and intraabdominal structures could direct towards early detection and diagnosis of TDH. Ultrasound findings such as absent of lung sliding and presence pf peristaltic movement in thoracic cavity should increase the suspicion of diaphragmatic hernia following trauma.

CONCLUSION

Prompt preliminary recognition of TDH using ultrasound could provide immediate and better outcome for patient as therapeutic surgical intervention will be executed faster.

CORRESPONDENCE

Vedavyasan A/L Devandran
Emergency & Trauma Department,
Hospital Pasir Mas,
17000 Pasir Mas,
Kelantan, Malaysia.
+6013-4203723
Email: veda_vhy19@yahoo.com

MTC 2024 POSTERS A10

Unveiling Hidden Clues: Isolated Pelvic Fluid As A Predictor Of Splenic Injuries In Trauma

Rathika Sivaji[1], Nursaleha Mohammad Pala[1], Kalyani Rajuendran[1]

[1] *Department of Emergency and Trauma, Hospital Putrajaya, Wilayah Persekutuan Putrajaya, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Intra-abdominal injuries are a significant cause of morbidity and mortality among trauma patients worldwide, often difficult to diagnose solely through physical examination. This report explores a possible correlation between isolated pelvic free fluid detected by E-FAST (Extended Focused Assessment with Sonography for Trauma) and splenic injuries in trauma patients.

CASE REPORT

Two cases from motor vehicle accidents highlight this correlation. The first case involves a 32-year-old female pillion rider who, after sustaining multiple injuries and exhibiting lower abdominal tenderness, showed free fluid in the Pouch of Douglas via E-FAST. CT scan confirmed a grade 3 splenic injury. She was resuscitated with two pints of packed cells, managed conservatively, and remained stable. The second case describes a 34-year-old male with loss of consciousness and retrograde amnesia following an accident. Presenting with fluctuating Glasgow Coma Scale (GCS) scores and multiple limb injuries, he also reported non-specific abdominal tenderness and haematuria. E-FAST detected free fluid in the rectovesical pouch. CT scan revealed a grade 2 splenic injury, a left perirenal hematoma, and a left temporal extradural haemorrhage. He received one pint of packed cells during resuscitation and remained stable. Both patients were discharged well after a period of observation.

DISCUSSION

E-FAST is known for its high sensitivity and specificity in detecting intraabdominal free fluid, though it may not always accurately identify the source. While splenic injuries typically present with peritoneal free fluid localized to the splenic region, evidence linking isolated pelvic free fluid to splenic trauma is limited. In these cases, sonography identified isolated pelvic free fluid in patients with non-specific abdominal pain, during which the pelvis was not the most dependent area. CT scans confirmed splenic injuries, suggesting a hypothetical association. Recognizing this novel correlation can prompt further diagnostic evaluation and direct clinical management particularly in cases where signs of injury are subtle or absent.

CONCLUSION

Isolated pelvic free fluid in trauma patients may be a significant indicator for splenic injury. Further research with larger patient cohorts is necessary to validate this potential correlation.

CORRESPONDENCE

Rathika Sivaji,
Department of Emergency and Trauma,
Hospital Putrajaya,
62250 Wilayah Persekutuan Putrajaya, Malaysia
+60165146651
Email: rathikasivaji@yahoo.com.my

MTC 2024 POSTERS A12

The Eerie Ears: A Case Of Bilateral Ears Amputation

Ahmad Fareez Mohd Imran[1], Eleena Shazlin Shuhaimi[1], Elisa Audrey Eddie[1], Abd Adzim E. Arim Sasi.[1].

[1] *Hospital Tawau, Sabah, Malaysia.*

POSTER ABSTRACT

INTRODUCTION

Trauma related injuries are vast and cases of bilateral ears avulsion were relatively under-reported or rare. Most of the cases reported were unilateral ear injuries and the successful surgical interventions. This is a case report of bilateral ears avulsion with inevitable amputation.

CASE REPORT

A 40-year-old healthy man, presented after a road traffic accident with bilateral ear avulsion and mild head injury. Initial management included compression bandaging due to severe ear distortion, with no cerebrospinal fluid leakage noted. CT imaging revealed right parietal subarachnoid hemorrhage and thin occipital subdural hemorrhage, without skull or cervical spine fractures. His Glasgow Coma Scale remained stable. Surgery by the ORL team deemed both ears unsuitable for reconstruction, thus removed. He was admitted for observation and further evaluation.

DISCUSSION

Immediate hemorrhage control in traumatic ear amputations is critical to prevent hypovolemic shock and death. Multiple techniques are available and compression dressing being the common initial measure, hemostatic suturing and hemostatic dressing application would be the other options. Tranexamic acid (TXA) administration had been proven to reduce the mortality in trauma patients. Salvage of amputated ears focuses on functional outcomes and quality of life. Successful reattachment, reported with rates of 50%-80%, depends on injury severity, time since amputation, and the surgical expertise. Al-Ali et al. had developed an algorithm for surgical management of traumatic auricular avulsion injuries in the acute settings. In this case, primary closure was opted as the amputated segment was missing and microsurgery was not available.

CONCLUSION

In conclusion, the management of traumatic bilateral ear amputations requires a multifaceted approach, prioritizing rapid hemorrhage control and timely surgical intervention if available for ear salvage.

CORRESPONDENCE

Ahmad Fareez bin Mohd Imran,
Hospital Tawau,
91000 Tawau,
Sabah, Malaysia.
+6013-6010521
Email: maxpointer1991@gmail.com

MTC 2024 POSTERS

A13

Case Series Of Traumatic Diaphragmatic Hernia (TDH): Misdiagnosed Can Be Disastrous!

Wan Ahmad Zulhilmi bin Wan Ismail[1], Syarifah Nor Izyan binti Syed Hasan[1], Zatul Rathiah binti Sulong[1], Hafidahwati binti Hamad@Ahmad[1]

[1] *Hospital Sultanah Nur Zahirah, Terengganu, Malaysia*

POSTER ABSTRACT

INTRODUCTION

The incidence of TDH is exceedingly low, about 8% of all major blunt trauma patient. Prompt diagnosis is essential, as missed injury is associated with significant morbidity and mortality.

CASE DESCRIPTION

Case 1

39 years old gentleman, involved in motor-vehicle accident (MVA). Patient was a car driver collided with another car. Patient was tachypneic and desaturated under room air. Chest x-ray (CXR) was interpreted as left hemopneumothorax. Ryle's tube was inserted and revealed the tube was in left lung cavity. Computed tomography (CT) thorax, abdomen and pelvis (TAP) showed features of left diaphragmatic hernia with stomach content and left hemothorax. Explorative laparotomy and left TDH repair were performed.

Case 2

45 years old lady presented to ED after involving in MVA. Patient was a car driver, was hit by 4x4 vehicle. She was tachypneic and desaturated under room air. Left hemothorax was initially diagnosed. Chest tube was inserted however did not functioning. Ryle's tube was inserted, CXR showed ryle's tube was in the left lung cavity with encysted radiolucent area covering left thorax. CT TAP showed left TDH with herniation of stomach and large bowel loops with massive left pneumothorax. Patient underwent explorative laparotomy and left TDH repair.

DISCUSSION

TDH often results from blunt abdominal trauma. Earlier and prompt diagnosis made can significantly reduce the rate of morbidity and mortality. CXR of TDH can mimic other findings such as atelectasis, pneumothorax, hemothorax, and/or pulmonary contusion. Hence, correct interpretation of CXR is very crucial in making diagnosis in order to avoid inappropriate management of the patient.

CONCLUSION

TDH is a diagnosis made on a high index of suspicion which has to be confirmed with appropriate imaging (computed tomography is gold standard). Initial imagings such as CXR and ultrasonography are vital for the diagnosis of TDH. CXR with nasogastric tube in-situ is the easiest way to detect TDH if CT imaging is not available especially in district setting. Misinterpretation of chest radiograph with other diagnosis can delay the definitive treatment of TDH and lead to another serious complication.

CORRESPONDENCE

Wan Ahmad Zul Hilmi Bin Wan Ismail
Hospital Sultanah Nur Zahirah,
20400 Kuala Terengganu,
Terengganu, Malaysia.
+6013-9214928
Email: dr.wanahmad@moh.gov.my

MTC 2024 POSTERS A14

Easy Practice Pneumo-Hemothorax Manikin: Perfecting Skills to Save Lives

Devendren Ganason[1], Farah Alwi[1], Al-Hilmi Saim[1]

[1] *Hospital Seri Manjung, Perak, Malaysia*

POSTER ABSTRACT

INTRODUCTION

An emergent tube thoracotomy is a high-risk, low frequency life-saving procedure crucial for emergency doctors to learn.It is highly suited for simulation training to allow the procedure to be practiced without fear of being unsuccessful or causing harm. Moreover, realistic thoracotomy models are expensive and not readily available.

DESCRIPTION AND FEATURES

The Easy Practice Pneumo-Hemothorax is a dual mode training manikin effective or simulation of finger thoracotomy and tube thoracotomy.It is developed using readily available materials.It has two training sections that can be used to practicetube thoracotomy in both hemothorax and pneumothorax.Trainee will be able to perform all steps of chest tube insertion from skin incision, tissue and muscle layers separation, perforation of the pleura, tube placement and suturing to secure the tube.A successful insertion will manifest bubbling of air in the underwater seal for pneumothorax;or red dyed fluid draining in the tube for hemothorax.These training pads can be incised and sutured and are easily replaceable at minimal cost.

IMPACT AND COST-EFFECTIVENESS

Significant level of confidence among the doctors and paramedics in our emergency department were seen after hands-on training was performed using this manikin. Trainees are able to appreciate every step of the procedure and are more confident to perform finger and tube thoracotomy. The attitude towards performing this procedure in imminent danger has become positive as trainees were able practice multiple times on the manikin and developed muscle memory. This changes the practice in our department where we see more junior doctors and paramedics keen to perform tube thoracotomy compared to before training using our manikin. The total cost of this manikin is RM109, three times lesser comparing to animal model and one tenth the price of a basic practical manikin on the market.The replaceable pads would cost approximately RM1 per training pad.

CONCLUSION

The Easy Practice Pneumo- Hemothorax Manikin provides a valuable teaching opportunity to Emergency Medicine residents who otherwise might not have the opportunity to perform this procedure.Our doctors and paramedics agreed that the model improved their confidence and is an effective method in providing the opportunity to practice this low-frequency, high-risk procedure.

CORRESPONDENCE

Devendren A/L Ganason
Hospital Seri Manjung,
32040 Seri Manjung,
Perak, Malaysia.
+6017-7297005
Email: devendren_ganason@yahoo.com

MTC 2024 POSTERS A15

Retained Foreign Body In The Right Supraclavicular Fossa Following An Alleged Fall And Its Challenges On Diagnosing And Retrieval: A Case Report

Aisyah R[1], Maizatul Aliaa AM[1], Diong NC[1], Normah I[1], Mathew T[1]

[1] *Hospital Sultan Ismail Johor Bahru, Johor, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Foreign objects embedded in the body, especially in chest trauma are a common problem in emergency departments. While some retained foreign bodies are missed in initial presentation, these retained objects may result in various complications such as pain and infection at a later stage. We describe a case of foreign body retained in the right supraclavicular fossa, its challenges on identifying on diagnostic imaging and surgical retrieval of the item.

CASE DESCRIPTION

A 21 year-old gentleman presented to the emergency department following a fall in the toilet. He complained of persistent pain over the right shoulder and an initial chest radiograph shows subcutaneous emphysema with no hemopneumothorax. Computed tomography (CT) Thorax was done before he was subjected to wound exploration and foreign body removal surgery on post trauma day three due to diagnostic dilemma. A broom cap was retrieved from the right supraclavicular fossa with a notable track to the wound at his right axilla.

DISCUSSION

Organic foreign bodies are radiolucent because their density is similar to surrounding structures and may mimic air pockets or remain isodense to surrounding soft tissues depending on the imaging modality. Such cases may become a challenge to diagnose and this may result in delay in definitive treatment.

CONCLUSION

This case illustrates the importance of history and through advancement of imaging modalities, interpretation and diagnosis should be done promptly so as to correctly identify and retrieve these foreign bodies to prevent serious complications to patients.

CORRESPONDENCE

Aisyah Binti Razali,
Hospital Sultan Ismail Johor Bahru,
81100 Johor Bahru,
Johor, Malaysia.
+6012-7294155
Email: aisyahrazali@hotmail.com

MTC 2024 POSTERS A17

Whole-Body CT Scans In Obese Polytrauma Patients

Ahmad Misbahul Munir Saifullah[1]

[1] *Emergency and Trauma Department, Seri Manjung Hospital, Perak, Malaysia.*

POSTER ABSTRACT

INTRODUCTION

This case underscores the complexities involved in diagnosing abdominal injuries following blunt trauma, especially when initial assessments and imaging yield inconclusive or falsely reassuring. Clinicians should contemplate prolonging observation periods for trauma patients, even in the absence of initial signs pointing to severe injury. This proactive approach may improve the early detection of delayed complications, ultimately optimizing patient outcomes and diminishing the risk of post-discharge complications.

CASE DESCRIPTION

A 47-year-old man with hypertension and a BMI of 39.2 was involved in a motor vehicle accident between a car and a lorry. Then, the patient was brought to the ED. Initial management was done, and bedside x-rays and EFAST were performed with limited visualization. Hence, a further radiological exam was needed. Despite emergency medical interventions, the patient experienced two cardiac arrests while in the CT suite and was pronounced deceased there. He suffered multiple bilateral rib fractures with hemothorax, a third thoracic vertebral fracture, severe traumatic brain injury and intra-abdominal bleed.

DISCUSSION

WBCT scans have been proven to offer superior imaging with high sensitivity and specificity to detect injuries compared to other radiological modalities. Studies have consistently demonstrated that integrating WBCT into early trauma care, significantly increased the probability of survival in patients with polytrauma Although the radiation risk remains a topic of debate, WBCT is far superior when investigating the obese population. WBCT offers several benefits for investigating polytrauma patients, including comprehensive coverage, detailed imaging, rapid scanning, and high diagnostic confidence. While X-rays have their place in initial assessments and specific contexts, WBCT is the gold standard for a thorough and accurate evaluation of polytrauma patients. Additionally, WBCT reduces the risk of imaging complications, such as excessive manipulation of limbs during X-rays.

CONCLUSION

Hospitals equipped with CT scans should consider implementing WBCT for polytrauma patients, especially obese populations. WBCT is sensitive in detecting intra-abdominal injuries, spinal injuries, and pelvic bone fractures, which are sometimes difficult to identify with X-ray or EFAST in obese patients.

CORRESPONDENCE

Ahmad Misbahul Munir Bin Saifullah,
Emergency and Trauma Department,
Hospital Seri Manjung,
32040 Seri Manjung,
Perak, Malaysia.
+6019-5645706
Email: ammsaifullah018@gmail.com

MTC 2024 POSTERS A18

Riding Fine, Crashing Inside: Unveiling Bowel Injury Post-Blunt Trauma

Eleena Shazlin Shuhaimi[1], Elisa Audrey Eddie[1] , Abd Adzim E Arim Sasi[1]

[1] *Hospital Tawau, Sabah, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Blunt abdominal trauma from motor vehicle accidents (MVA) poses diagnostic challenges due to its diverse range of injuries and complex abdominal cavity involvement. Delayed presentations can result in serious consequences if not promptly identified and managed.

CASE DESCRIPTION

A 26-year-old gentleman presented post-car accident, attributed to microsleeping, complaining of mild right flank pain. Physical examination revealed a 4x3cm abrasion over the right flank. Otherwise, the abdomen was soft with no tenderness or guarding. He was discharged after a normal X-ray and negative Focused Assessment using Sonography in Trauma (FAST) scan. Two days later, worsening abdominal pain prompted a return to the ER and repeat erect CXR revealed subdiaphragmatic air. Contrast-enhanced CT (CECT) abdomen showed hemopneumoperitoneum with multiple sites of bowel injury. Emergency laparotomy confirmed the findings, necessitating surgical repair and stoma creation. Post-surgery, he achieved full recovery.

DISCUSSION

Blunt abdominal trauma presents significant diagnostic challenges especially when the initial symptoms are mild. This case underscores the importance of clinical reassessment and the potential need for further imaging, even when initial FAST results are negative. A negative FAST scan, even in a clinically stable patient, should be followed by ongoing observation and repeat FAST scans within 12 to 24 hours. Furthermore, it is recommended to provide a referral for reassessment at an emergency department or local clinic, should the patient's abdominal pain worsens, to ensure timely and accurate management of potential injuries.

CONCLUSION

This case underscores the complexities involved in diagnosing abdominal injuries following blunt trauma, especially when initial assessments and imaging yield inconclusive or falsely reassuring. Clinicians should contemplate prolonging observation periods for trauma patients, even in the absence of initial signs pointing to severe injury. This proactive approach may improve the early detection of delayed complications, ultimately optimizing patient outcomes and diminishing the risk of post-discharge complications.

CORRESPONDENCE

Eleena Shazlin Binti Shuhaimi
Hospital Tawau,
91000 Tawau,
Sabah, Malaysia
+6017-3030535
Email: eleena_shazlin@hotmail.com

MTC 2024 POSTERS A19

Advanced Diagnostic Approaches: The Efficacy Of Point-Of-Care Ultrasound In Managing Bilateral Pneumothorax Due To Blunt Chest Trauma

Wen Tzien Lim[1], AK Nabil Muhammad[1], Chong Hern Leong[1]

[1] *Emergency & Trauma Department Hospital Selayang, Selangor, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Chest trauma is a major concern in emergency care, ranking as the third leading cause of death after head and abdominal injuries. Bilateral pneumothorax, a life-threatening condition, requires prompt diagnosis to prevent respiratory failure. Point-of-care ultrasound (POCUS) is invaluable for rapidly assessing thoracic injuries. Its high specificity (94%) and sensitivity (86%), accuracy, portability, and bedside usability significantly enhance its efficacy in emergency settings.

CASE DESCRIPTION

A 22-year-old male with no comorbidities sustained blunt chest trauma when a ten kilogram cement block fell on his chest, causing him to fall backward. He presented with anterior chest pain, mild shortness of breath, with otherwise normal vital signs. Physical examination revealed chest tenderness and reduced breath sounds bilaterally, with no chest deformity, open wounds, or tracheal deviation. Immediate lung POCUS showed absent lung sliding and presence of "barcode sign" and lung point bilaterally, confirming bilateral pneumothorax. A chest x-ray (CXR) revealed bilateral first rib fractures. The patient received supplemental high-flow oxygen, and bilateral chest tubes were inserted, after which he was referred to the surgical team and was discharged well after five days.

DISCUSSION

Traumatic pneumothorax is a leading cause of preventable morbidity and mortality, occurring in 20% of blunt and 40% of penetrating chest injuries. POCUS is well-established for its rapid and reliable diagnosis, with studies concluding higher sensitivity (86%-98%) and specificity (94%-100%) compared to CXR. The lung point sign is pathognomonic for pneumothorax, while the absence of lung sliding and comet tail artifacts (B-lines) has a high negative predictive value (98%-100%). While computed tomography (CT) scan remains the gold standard, it requires patient transport, risking hemodynamic stability and delaying treatment.

However, POCUS has challenges, including operator dependency and variability in diagnostic accuracy. Image quality may be compromised in obese patients or those with subcutaneous emphysema. Additionally, POCUS may miss small pneumothoraces and can struggle to differentiate pneumothorax from conditions like bullae, highlighting the need for comprehensive imaging.

CONCLUSION

POCUS is a well-established, portable modality that enables rapid diagnosis of pneumothorax in emergency settings. Despite its limitations, its sensitivity and specificity, driven by specific diagnostic signs, are comparable to that of CT scans, making it an essential tool in the early management of chest trauma.

CORRESPONDENCE

Lim Wen Tzien,
Emergency & Trauma Department,
Hospital Selayang,
68100 Batu Caves,
Selangor, Malaysia.
+6018-9814518
Email: wentzien221@gmail.com

MTC 2024 POSTERS A20

Eye-Popping: Traumatic Globe Luxation: A Case Report

Abdul Fattah bin Abdul Ghafar[1], I Fathiyah Mazlan[1], Mohammad Al-Zakwan Mohamed Haidir[1], Arief Daniel Abdul Malik[1], Farah Alwi[1]

[1] *Hospital Seri Manjung, Perak, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Globe luxation is one of the dreaded complication of blunt craniofacial trauma. It is often associated with high-energy trauma to the periorbital structures, typically involving significant craniofacial or maxillofacial injuries; displacing the tissues within the orbit. We present a case of traumatic globe luxation following a road traffic accident, occurring without substantial maxillofacial bone injury, and highlights the pathomechanism and importance of timely intervention.

CASE DESCRIPTION

A 16-year-old male was involved in a road traffic accident between motorbike and lorry. He presented with pain and bleeding from his left eye. Initially, his Glasgow Coma Scale (GCS) was full, but he experienced a generalised tonic-clonic seizure during transfer. On arrival to the emergency department, his GCS had dropped to 8/15, necessitating intubation for cerebral protection.

Examination revealed his left eye protruding beyond the orbital rim, with the cornea facing downward and total hyphema present. There was no foreign body or active bleeding detected. The contralateral eye was normal, and the midfacial examination showed only a minimal laceration over the chin, with no significant swelling or crepitus. To protect the globe and preserve its integrity, a plastic cup with an eye patch was initiated by the prehospital team.

CT imaging of the orbit demonstrated inferolateral traumatic luxation of the left globe with optic nerve avulsion, vitreous haemorrhage, lens dislocation, and suspected tears in the extraocular muscles (medial and superior rectus). CT brain imaging revealed subtle acute punctate haemorrhages in the left frontal lobe and fractures involving the frontal bone, roof, and medial wall of the left orbit.

Despite the intact globe, the family declined the option of globe repositioning to avoid secondary operation. Left globe enucleation, explorative conjunctival peritomy followed by transection of all rectus muscles and the optic nerve was performed.

DISCUSSION

Globe luxation is a rare ophthalmic emergency where the globe protrudes anteriorly beyond the eyelid aperture, often associated with severe trauma. Mechanisms proposed include anterior luxation due to blunt forces, coup-contrecoup injury, reduced orbital volume from orbital roof fractures, sudden orbital shocks, violent beats, or a large foreign body acting between the eyeball and the orbit, and the sudden reflex movement of the head in the opposite direction, which causes the eyeball to protrude toward the orbital position. According to the degree of eyeball luxation, it can be divided into semi-luxation and total luxation. Our patient had multiple orbital wall fractures and extraocular muscle injuries from a possible strong deceleration forces directed along the nasal aspect leading to a loss of orbital volume, anteroposterior traction onto the globe-nerve junction with added torsional tension contributing to the globe's luxation and separation of the optic nerve.

Early intervention was critical in preserving the globe's integrity to protect the protruded globe from contamination and further injury. While globe preservation is preferred for cosmetic and psychological reasons, globe enucleation particularly in involvement of optic nerve avulsion still considered as the best treatment option. Globe enucleation was chosen in this case due to the severity of the optic nerve avulsion and the family's decision.

CONCLUSION

Traumatic globe luxation is an uncommon but critical condition, often associated with significant craniofacial injury. Mechanisms such as increase intraocular pressure, sudden extreme rotation of the globe, anterior globe luxation and retro-pulsion of the optic nerve have been described as the reason of this condition. Salvation of an intact globe starts from the prehospital care management of protecting the globe from further luxation and contamination; to early exploration in sterile condition for globe repositioning and preservation.

CORRESPONDENCE

Abdul Fattah bin Abdul Ghafar,
Hospital Seri Manjung,
32040 Seri Manjung,
Perak, Malaysia.
+6019-3990141
Email: almanjunji93@gmail.com

MTC 2024 POSTERS A24

When Breath Is A Battle: Managing Blunt Traumatic Laryngeal Injury

Kartiga[1], Tamil Mullai[1], Tan Chun Chau[1]

[1] *Emergency and Trauma Department, Hospital Seberang Jaya, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Laryngeal trauma poses a significant risk with a high fatality rate following high-impact injuries such as motor vehicle accidents (MVA). Rapid identification and management of laryngeal trauma are crucial to prevent airway obstruction and complications.

CASE DESCRIPTION

A 15-year-old boy was brought in with hemoptysis, drooling, and respiratory distress requiring supplemental oxygen after a motor vehicle accident. His vital signs were blood pressure 132/79 mmHg, heart rate 98 bpm, temperature 37°C, oxygen saturation 97% on room air and Glasgow Coma Scale (GCS) of E4V5M6. The physical examination of the neck was unremarkable. A laceration over his left mandible was sutured. Flexible bedside laryngoscopy by the otorhinolaryngology team showed bilaterally swollen arytenoids but a patent airway. He underwent nasal awake fiberoptic intubation for impending upper airway obstruction. Post-intubation bronchoscopy showed pooling of blood from the lungs, and direct laryngoscopy revealed a mucosal tear on the posterior pharyngeal wall at the epiglottis level. A contrast enhanced computed tomography (CECT) neck scan showed laryngeal edema with hematoma and multiple foci of air pockets causing airway stenosis, classified as Schaefer Grade 2. He was started on intravenous dexamethasone for five days. He was extubated after four days and discharged home on the eighth day post-injury.

DISCUSSION

The presence of hemoptysis and drooling heightened clinical suspicion of laryngeal trauma. Fiberoptic laryngoscopy aids diagnosis, while a CT scan is the gold standard for assessing the larynx and guiding treatment. A normal fiberoptic examination does not rule out injury, as bleeding or edema can obscure the findings. In this case, rapid airway management with early intubation and a CT scan, which confirmed the laryngeal injury, prevented catastrophic long-term consequences.

CONCLUSION

A high index of suspicion for laryngeal trauma is essential in patients presenting with soft signs of neck injury. Prompt recognition and acute airway management are crucial in improving patient outcomes.

CORRESPONDENCE

Tamil Mullai A/P Tamilselvan
Emergency and Trauma Department,
Hospital Seberang Jaya,
13700 Perai,
Pulau Pinang, Malaysia.
+6011-16464905
Email: tamilmullai4905@gmail.com

MTC 2024 POSTERS A25

When A Shot Rang Out: Emergency Management Of Abdominal Gunshot Wounds

Tamil Mullai[1], Yashnee[1], Tan Chun Chau[1]

[1] *Emergency and Trauma Department, Hospital Seberang Jaya, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Abdominal gunshot wounds range from minor injuries to life-threatening conditions, depending on the anatomical structures involved. Prompt and effective management is crucial to improving patient outcomes.

CASE DESCRIPTION

A 41-year-old male customs officer accidentally shot himself in the abdomen while handling a colleague's pistol. On arrival at the emergency department, the patient was alert with a full Glasgow Coma Scale score but in haemorrhagic shock (blood pressure 84/51 mmHg, heart rate 82). Physical examination revealed two entry wounds on the anterior abdomen and two exit wound on the posterior aspect. A FAST (Focused Assessment with Sonography in Trauma) scan showed intraperitoneal free fluid. The trauma team activated, and resuscitation commenced with intravenous tranexamic acid and one pint of crystalloid fluids, followed by blood transfusions under a massive transfusion protocol (MTP). Emergency exploratory laparotomy as part of damage control surgery (DCS) evacuated 1.3 liters of blood in the peritoneal cavity and resected a 10-centimeter segment of multiple perforated small bowel. Re-laparotomy 48 hours later resulted in further 20-centimeter small bowel segment resection. The patient was discharged well after 10 days.

DISCUSSION

This case illustrates the complexities of managing high-energy ballistic trauma, which leads to severe tissue disruption and massive blood loss. Initiating damage control resuscitation (DCR) early was pivotal in stabilizing the patient. The DCR approach focused on permissive hypotension, minimizing crystalloid use, and prioritizing balanced blood product transfusion administering packed red blood cells, fresh frozen plasma, and platelets to restore circulating volume while mitigating the risk of dilutional coagulopathy. Despite the successful outcome, potential areas for improvement include optimizing prehospital care to ensure early activation of blood products and advanced resuscitation measures prior to hospital arrival.

CONCLUSION

Timely interventions, including rapid assessment, bedside ultrasound, and DCR with MTP and DCS, are essential to minimize complications and ensure positive outcomes in abdominal gunshot injuries.

CORRESPONDENCE

Yashnee A/P Vingam
Emergency and Trauma Department,
Hospital Seberang Jaya,
13700 Perai,
Pulau Pinang, Malaysia.
+6016-4150094
Email: yashnee3112@gmail.com

MTC 2024 POSTERS A26

Bamboo Spine Fracture - A Case Of Chalk Stick Fracture In Ankylosing Spondylitis After Trivial Injury

Nik Najiah Nik Mohd Yusoff[1], Poonggodi Perumal[1], Amirah Azman[1],Muhammad Farhan Izani[1], Tengku Azimin Tengku Hamzah[1]

[1] *Emergency and Trauma Department, Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan*

Keywords: *Ankylosing spondylitis (AS), Magnetic resonance imaging (MRI), Computed tomography (CT)*

POSTER ABSTRACT

INTRODUCTION

Ankylosing spondylitis (AS) is a chronic inflammatory joint disease primarily affecting the axial skeleton, characterized by fusion of facet joints and intervertebral discs, leading to a rigid, kyphotic 'bamboo spine'. This rigidity significantly increases the susceptibility to vertebral fractures following trauma. We present a case of 65 years old with underlying AS sustained significant spinal fracture following trauma.

CASE DESCRIPTION

65-year-old man with underlying AS involved in a motor vehicle accident while riding a motorcycle and complained of persistent back pain and numbness over the right lower limb. Lower cervical and upper thoracic regions were tender on examination with neurological deficits up to T4 level. He also developed hypotensive episode with normal heart rate necessitating intravenous fluid resuscitation and low dose single vasopressor after haemorrhagic shock had been ruled out. Computed tomography (CT) scan of spine showed a T2 fused vertebral fracture and fracture of the left transverse process of T1. Urgent Magnetic Resonance Imaging (MRI) of spine confirmed these findings and additional spinal cord oedema around T1/T2 level and dislocation at the S1/S2 level was identified.

DISCUSSION

AS associated spinal fusion and ossification increase the risk of chalk stick fractures, as reduced spine flexibility makes the spine more vulnerable to fracture, especially under traumatic conditions.

CT scans provide detailed bony images essential for fracture identification due to their superior resolution. MRI , being sensitive to soft tissue changes, is crucial for detecting bone marrow oedema and assessing acute fractures comprehensively.

Effective management of fractures in AS involves immediate pain relief, stabilization measures, potential surgical interventions for unstable fractures or neurological compromise and comprehensive rehabilitation to optimize long- term outcomes.

CONCLUSION

Patients with AS face a heightened risk of acute spinal fractures, largely attributed to osteoporosis and spinal rigidity. Hence, a high suspicious of spinal injuries in AS patients presenting with trauma to the emergency department should be maintained and CT scan is a choice modality for the diagnosis.

CORRESPONDENCE

Nik Najiah binti Nik Mohd Yusoff,
Emergency and Trauma Department,
Hospital Raja Perempuan Zainab II,
15586 Kota Bharu,
Kelantan, Malaysia.
+6016-9508005
Email: nnnmy91@yahoo.com

MTC 2024 POSTERS A27

Oh No! I Cannot Speak! A Case Report Of Traumatic Laryngeal Injury

Muhamad Hazimin Ishak[1], Muhammad Nasri Abu Bakar[1]
Nur Liyana Ab Aziz[1], Muhammad Zulhilmi Arifin[1]

[1] *Hospital Sultan Ismail Petra, Kuala Krai, Kelantan.*

POSTER ABSTRACT

INTRODUCTION

Laryngeal trauma is a rare but potentially deadly injury. We report a case of blunt traumatic laryngeal injury that was presented at our center.

CASE DESCRIPTION

A 20-year-old Malay gentleman was involved in a motor vehicle accident while seated in the passenger seat without a seatbelt. During the collision, the airbag deployed and struck his neck. Following the trauma, he reported neck pain. At the nearest health clinic, he exhibited stridor, with an oxygen saturation of 88%, was unable to speak, and had crepitus over the anterior neck extending to the chest. Bruises were also noted over the suprasternal notch and left anterior chest.

He was urgently transferred to our center, where he was intubated using a direct laryngoscope for airway protection. The Otorhinolaryngology (ORL) team was consulted, and a CT scan of the neck revealed a fracture of the right cricoid cartilage. Direct laryngoscopy and tracheoscopy identified a Schaefer-Fuhrman Grade III laryngeal injury. A surgical tracheostomy was performed, and he was discharged home on the 19th day of his admission.

DISCUSSION

Laryngeal fractures are rare injuries, often presenting with symptoms like stridor, hoarseness of voice, difficulty breathing, hemoptysis, or dysphagia. They can lead to airway collapse, so securing the airway is crucial. Intubation is the initial step, and displaced fractures or disruptions of internal laryngeal structures should be repaired within 48 hours. Early recognition and treatment, typically within 48 hours, improve voice, swallowing, and airway outcomes. Later, laryngeal treatment with speech therapy sessions is essential for long-term vocalization and deglutition.

CONCLUSION

Blunt traumatic laryngeal injury may present with aphonia. Prompt diagnosis and management are crucial in preventing long-term complications.

CORRESPONDENCE

Muhamad Hazimin Bin Ishak
Hospital Sultan Ismail Petra,
18000 Kuala Krai,
Kelantan, Malaysia.
+6014-8231604
Email: hazimin_93@yahoo.com

MTC 2024 POSTERS

A28

Pneumomediastinum In A Blunt Chest Trauma : A Case Report

Nurul Nazalia Muhammad[1], Wan Ahmad Zul Hilmi Wan Ismail[1],Zatul Rathiah Abdul Razak[1], Hafidahwati Hamad@Ahmad[1]

[1] *Hospital Sultanah Nur Zahirah, Terengganu, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Pneumomediastinum is the presence of free air around mediastinal structure either spontaneous or secondary. Blunt trauma is the most common mechanism of injury, may occur up to 10% of the patients with severe blunt thoracic or cervical trauma.

CASE DESCRIPTION

A 33-year-old male presented to the emergency department following a motor vehicle accident in which he was a motorcyclist, collided with a car. He exhibited retrograde amnesia and reported pain over the back. Upon examination, the patient was tachypnoeic and hypotensive. There were reduced breath sounds over the left lung, with hyperresonance noted on percussion. Finger thoracostomy followed by chest tube insertion was performed. The patient was then intubated for respiratory failure. A chest radiograph showed pneumomediastinum. Computed tomography of the thorax and abdomen revealed bilateral hydropneumothorax, pneumomediastinum, a grade III splenic injury, and multiple thoracic spine fractures. The patient was treated conservatively and was able to be discharged after 2 weeks of hospitalization.

DISCUSSION

Pneumomediastinum can result from blunt or penetrating trauma, often linked to the Macklin effect, where increased intrathoracic pressure causes alveolar rupture and air leakage into the mediastinum. Diagnosis is challenging due to nonspecific symptoms like chest pain and dyspnea, which can mimic other conditions such as pneumothorax or hemothorax. Imaging techniques, particularly chest X-rays and CT scans, are crucial for identifying air in the mediastinum, but subtle cases may be missed. Comorbid injuries in trauma patients further complicate diagnosis, as they may obscure the signs of pneumomediastinum. Treatment varies based on the underlying cause and symptom severity. Mild cases may require only supportive care, while severe cases might necessitate surgery to address persistent air leaks. Surgical decisions involve balancing risks and potential complications, such as infections or additional air leaks, which require careful postoperative monitoring. Patient factors, including age and health status, can also influence treatment responses and management strategies.

CONCLUSION

Pneumomediastinum poses diagnostic challenges due to nonspecific symptoms that can mimic other conditions. Successful management requires careful consideration of individual patient factors and potential complications, emphasizing the need for a tailored, multidisciplinary approach.

CORRESPONDENCE

Nurul Nazalia Binti Muhammad
Hospital Sultanah Nur Zahirah,
20400 Kuala Terengganu, Terengganu, Malaysia.
+6013-3783175
Email: nazaliamuhammad@yahoo.com

MTC 2024 POSTERS

A29

Development Of Posttraumatic Brain Abscess Following A Fall

Muhammad Syahmi Ismail[1], Elisa Audrey Eddie[1], Abd Adzim E Arim Sasi[1]

[1] *Hospital Tawau, Sabah, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Brain abscess is a rare but serious complications that can arise following a trauma. Bacterial contamination of the intracranial space after penetrating injury or skull fracture is common but the incidence of posttraumatic brain abscess is low and such complications associated with blunt trauma is exceedingly rare. Delayed presentation remained a challenge as it comes with serious complications and outcomes.

CASE DESCRIPTION

A 1 year 9 months old boy previously healthy presented with multiple episodes of seizures associated with fever several weeks after history of fall from bed. He was put into a coma state for cerebral protection.Contrast CT imaging revealed ruptured left frontal cerebral abscess with ventriculitis, acute hydrocephalus and cerebral edema. Clinical presentation of an intracranial abscess following trauma may vary such in this case the patient had persistent fever despite on antibiotic which further complicated with status epilepticus. Neurosurgical team planned for drainage but subdued by parents decision which opted for conservative management.

DISCUSSION

This case highlights the necessity for thorough history taking and high index of suspicion as manifestation of brain abscess tend to be nonspecific with fever accounting for 45%-53% and seizures 25%-35% respectively contributing to delay in diagnosis. A high index of suspicion should be maintained , and early imaging such as computed tomography should be considered for patient with symptoms of intracranial infection or who are at high risk, even after a minor head injury. The management of intracranial abscess in the setting of TBI requires a multimodal approach including surgical intervention, antimicrobial therapy and supportive care.

CONCLUSION

In conclusion, early detection and diagnosis, appropriate antibiotic therapy based on knowledge of the causative microbes and surgery are the major prognostic factors for brain abscess. Successful treatment necessitates an integrated approach with a systemic perspective to diagnosis and treatment, involving collaborative effort from various healthcare professionals.

CORRESPONDENCE

Muhammad Syahmi Ismail
Hospital Tawau, Sabah,,
Peti Surat 67,
91000 Tawau, Sabah, Malaysia.
+6014-5222858
Email: syahmi.ismail@yahoo.com

MTC 2024 POSTERS

A30

Traumatic And Shocking: Tackling Shock In Trauma, Beyond The Usual Mantra

Liyana Rosli[1], Mohd Zulfikri Hanafi[1], Nurul Nazalia Muhammad[1], Muhamad Sukri Mustafa[1], Hafidahwati Hamad[1]

[1] *Hospital Sultanah Nur Zahirah, Terengganu, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Shock in trauma typically arises from hemorrhagic causes, but other types of shock should also be considered as they may occur concurrently.

CASE DESCRIPTION

A 26-year-old male motorcyclist was involved in a high-impact motor vehicle accident and presented unconscious to a secondary hospital's emergency unit. During primary survey, blood pressure was hypotensive with reduced air entry over the left lung however trachea was central. Needle thoracocentesis was performed afterwards without gush of air or blood. Subsequently, he was persistently hypotensive and bradycardic. The Glasgow Coma Scale (GCS) was 12 with unequal pupils. Further assessment revealed a deep laceration wound over the left iliac fossa with a negative Extended Focused Assessment Sonography in Trauma (E-FAST). He was resuscitated with crystalloids, given packed cell transfusion, started on inotropic support, and transferred to a tertiary hospital. Upon repeated primary survey, the patient was hemodynamically stable on inotropic support. Neurological examination revealed no spinal deformity or tenderness, but sensation and limbs power were significantly reduced. Secondary survey adjuncts revealed a missed C4 fracture on a cervical x-ray from prior care. CT head and spine were done which showed punctate bleed in the right parietal region, and C4 burst fracture with spinal canal displacement and retrolisthesis.

DISCUSSION

The patient experienced spinal and neurogenic shock. Initial suspicions included obstructive and hemorrhagic shock. A thorough systematic assessment in trauma patients is necessary to aid identification of life-threatening conditions and prompt urgent intervention. Clinical identification of tension pneumothorax, aided by ultrasounds, is crucial. Inappropriate blood transfusion can harm patients who do not need it.

CONCLUSION

Managing shock in trauma is challenging. Both primary and secondary surveys are vital to be done systematically, along with their respective adjuncts. Physicians should rapidly be considering multiple possibilities of shocks that may be occurring simultaneously in trauma patients unresponsive to initial treatments.

CORRESPONDENCE

Liyana Rosli
Hospital Sultanah Nur Zahirah,
Jalan Sultan Mahmud,
20400 Kuala Terengganu,
Terengganu, Malaysia.
+6019-9002523
Email: liyanarosli921211@gmail.com

MTC 2024 POSTERS A31

Traumatic Cardiac Arrest Complicated with Bilateral Hemopneumothorax

Leong Chong Hern[1], Lim Wen Tzien[1], Leong Zhao Hong[2]

[1] *Emergency and Trauma Department, Hospital Selayang, Selangor, Malaysia.*
[2] *Emergency and Trauma Department, Hospital Duchess of Kent, Sandakan, Malaysia.*

POSTER ABSTRACT

INTRODUCTION

Traumatic cardiac arrest (TCA) is a rare but highly fatal event, often resulting from blunt or penetrating trauma. A complication that can severely compromise respiratory function and hemodynamics, adds to the complexity of TCA. This case report highlights the critical importance of rapid diagnosis and intervention in the management of TCA with bilateral hemopneumothorax.

CASE DESCRIPTION

A 54-year-old male was brought to the emergency department (ED) by ambulance after a high impact trauma. On arrival, the patient was unresponsive, pulseless, and apneic. Cardiopulmonary resuscitation (CPR) was initiated.

Initial Assessment and Management:

Airway: The patient had a secured airway with a cervical collar in place. Endotracheal intubation was performed by ED team.

Breathing: Bilateral absent breath sounds were noted. Immediate bilateral finger thoracosmy was performed.

Circulation: The patient was in pulseless electrical activity (PEA). External chest compressions were continued, and intravenous access was established.

Disability: Glasgow Coma Scale (GCS) was 3 (E1V1M1).

Exposure: No other significant external injuries were initially noted.

Focused Assessment with Sonography for Trauma (FAST):
- Positive for bilateral hemopneumothorax and no free fluid seen.

Interventions:

Chest Tube Insertion: Bilateral large-bore chest tubes were inserted in the fifth intercostal space, anterior axillary line, with immediate return of air and blood.

Fluid Resuscitation: Aggressive intravenous fluid resuscitation with crystalloids and blood products was initiated.

DISCUSSION

Traumatic cardiac arrest with bilateral hemopneumothorax presents a critical challenge requiring swift diagnosis and intervention. This case underscores the importance of immediate recognition and intervention, including finger thoracostomy, chest tube placement. Adherence to advanced trauma life support (ATLS) principles are crucial for improving outcomes in such dire circumstances.

Traumatic cardiac arrest, particularly in the setting of bilateral hemopneumothorax, poses unique challenges. Bilateral hemopneumothorax results from significant trauma to the chest, leading to the accumulation of both air and blood in both pleural spaces. This can severely compromise lung expansion, decrease venous return to the heart, and lead to cardiovascular collapse. Without rapid intervention to decompress the pleural cavities, the patient is likely to succumb to hypoxia and tension physiology.

In this case, the bilateral nature of the hemopneumothorax complicated the resuscitation. The patient required immediate decompression to relieve tension physiology and permit effective ventilation. The additional complication of cardiac arrest necessitated aggressive interventions, including a resuscitative thoracotomy, to address underlying injuries.

CONCLUSION

Timely diagnosis, appropriate resuscitative measures, and surgical intervention were pivotal in achieving a favorable outcome for the patient. Continued efforts in trauma education and protocol development are essential to enhance the care of patients experiencing similar traumatic events.

CORRESPONDENCE

Leong Chong Hern
Emergency and Trauma Department,
Hospital Selayang,
Lebuhraya Selayang - Kepong,
68100 Batu Caves, Selangor, Malaysia.
+6012-2836086
Email: edwin.hern6141@gmail.com

MTC 2024 POSTERS A33

Penetrating Neck Injury – Every Emergency Department's Nightmare

Dina Suraya Mustafa Rawther[1], Natalie Chew Bee Kwan[1]

[1] *Hospital Sungai Buloh, Selangor, Malaysia*

POSTER ABSTRACT

INTRODUCTION

Penetrating neck injuries are potentially catastrophic due to the structures in that lie within the neck – mainly the trachea, esophagus, carotid and vertebral arteries, and jugular veins.

CASE DESCRIPTION

A 28 years old gentleman who was stabbed in Zone 2 of the neck was brought to casualty. There was a deep laceration wound over the right lateral side of his neck that was continuously oozing, with hematoma surrounding it. He was not intubated during the initial resuscitation as there were no signs of airway or breathing compromise. Circulatory and hemorrhage control was secured by wound packing, suturing the wound, Safe O transfusion. CTA Neck revealed RCA injury - forming cervical hematoma extending down to superior mediastinum causing mass effect into surrounding structures. Patient was pushed to OT, where emergency tracheostomy was performed due to failed intubation secondary to severe tracheal deviation and compression by a large neck hematoma. Wound exploration was proceeded however RCA repair was not attempted as patient was in severe hypovolaemic shock and there was 90% arterial wall loss. Patient then succumbed following massive right cerebral acute infarct with cerebral edema.

DISCUSSION

Early intubation should be of consideration the anticipation of deterioration as there was a laceration wound in Zone 2, where the trachea is also located. The area of injury – whether blunt or penetrating must be closely monitored, looking for hard and soft signs as a hematoma can expand exponentially.

CONCLUSION

Special care and attention need to be put in dealing with cases involving neck injuries – specifically involving the CCA as the outcome of the damage to it can cause significant morbidity and mortality.

CORRESPONDENCE

Dina Suraya Mustafa Rawther
Hospital Sungai Buloh,
Jalan Hospital, 47000 Sungai Buloh,
Selangor, Malaysia.
+6017-6517507
Email: dinasuraya@hotmail.com