

A Case Report On Road Traffic Accident With Left Scapular Fracture With Adrenal Hematoma

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Abstract:

Introduction: Adrenal gland hemorrhage is an uncommon, yet likely under-diagnosed complication of high-impact trauma, such as motor vehicle accidents (MVA). It usually occurs with multi-trauma and is associated with additional injuries to the ribs, liver, kidney, spleen and vertebrae. Trauma cases with resultant adrenal gland injury have higher mortality rates. Primary adrenal insufficiency as a result of bilateral adrenal hemorrhage is potentially fatal.

Case presentation: A 32-year-old male was motor vehicle accident while riding at speed 70 km/hr he was brought to the emergency department in A.V.B.R. hospital and admitted to the orthopedic ward. With chief complaint of pain in left shoulder and tenderness present in left sided ribs .there is no any history of abdominal pain,nausea,vomiting. No history of cold, cough , fever .there is no history of trauma ,previous treatment in hospitalization .In patient no any associated illness were present like diabetes mellitus , hypertension ,tuberculosis, asthma .No any significant past history .In personal history like tobacco chewing habit. Physical examination and systemic examination was done. In respiratory system: bilateral clear, cardiovascular: heart sound was normal, central nervous system: G.C.S. E3, V5, M6.His vital sign is stable abdominal examination: soft and non-tender. No any abnormality detected in musculoskeletal system.The hospital and the doctor recommend further medical and surgical management.

Management: Patient was admitted to orthopedic ward for conservative management of fractured left scapular body, left side ribs, liver contusion and right adrenal hemorrhage. All the routine investigation was done. Hemoglobin 14.5gm%. The patient had been investigations, for example, blood test, Physical examination, X-ray, Contrast CT scan of thorax , abdomen and pelvis was done to exclude internal injuries .ECG and X-ray was done which was normal. Patient was started on antibiotics, analgesic, antacid, antiepileptic and another supportive medications. Ultrasonography was done and follow-up after one month .Surgery opinion was taken and patient was advised for conservative management.

Conclusion: due to conservative management and quality nursing care patient condition was stable and had no active complaints at present hence patient is being discharged.

Keywords: - Adrenal hemorrhage , trauma , scapula fracture .

Introduction:

Trauma to the shoulder is common. Injuries range from a separated shoulder resulting from a fall onto the shoulder to a high-speed car accident that fractures the shoulder blade (scapula) or collarbone (clavicle). One thing is certain: everyone injures his or her shoulder at some point in life.¹

Scapula Fractures are uncommon fractures to the shoulder girdle caused by high energy trauma and associated with pulmonary injury, head injury, and increased injury severity scores.²

Adrenal injuries after blunt abdominal trauma are very rare, but have been reported in 0.15% of patients in the literature. In 75%–90% of cases, hemorrhages are unilateral and the most affected gland is the right adrenal. Isolated adrenal injuries are very rare (4%) and are often associated with other organ injuries.³

Adrenal gland haemorrhage is an uncommon, yet likely under-diagnosed complication of high-impact trauma, such as motor vehicle accidents. It usually occurs with multi-trauma and is associated with additional injuries to the ribs, liver, kidney, spleen and vertebrae. Trauma cases with resultant adrenal gland injury have higher mortality rates. Primary adrenal insufficiency as a result of bilateral adrenal haemorrhage is potentially fatal.⁴

Primary adrenal or metastatic tumors are other possible causes of unilateral adrenal bleeding. In A thorough examination using sonography in the treatment of trauma (FAST), an evaluation was performed in the event of an emergency department; they were determined to be negative. However, this was Because of the high speeds involved in the race test. During the incident doctor recommended a computed tomography (C.T.) scan.⁵⁻⁸

Case History

A medical case was taken by A.V.B.R.hospital sawangi Wardha, Maharashtra, India. This complicated case was taken care of nicely by the hospital because of expert medical team management and excellent nursing care.

Patient information: This 32-year-old male met with motor vehicle accident while riding at speed 70 km/hr.He was brought to the emergency department in tertiary care hospital and admitted to the orthopedic ward. With chief complaint of pain in left shoulder and tenderness present in left sided ribs. There is no any history of abdominal pain, nausea, vomiting. No history of cold, cough, fever .there is no history of trauma ,previous treatment in hospitalization .In patient no any associated illness were present like diabetes mellitus , hypertension ,tuberculosis, asthma .No any significant past history .In personal history like tobacco chewing habit. Physical examination and systemic examination was done. In respiratory system: bilateral clear, cardiovascular: heart sound was normal, central nervous system: G.C.S. E3, V5, M6. His vital sign is stable abdominal examination: soft and non-tender. No any abnormality detected in musculoskeletal system. The hospital and the doctor recommend further medical and surgical management The patient was a 32-year-old man. To the hospital. Hospital in ortho ward. His chief complaint was a pain in the left shoulder and restricted movement of the left shoulder. The pain was sudden in onset and sharp shooting in nature. The patient could not move her upper limb immediately after the incidents localized to the left shoulder. After that, his parents approach A.V.B.R. The hospital and the doctor recommend further medical and surgical management.

Physical examination was done: height is 165cm and weight 50 kg, temperature was 96.5 F Pulse: 84 beats per min, Blood pressure: 120/90 mm of Hg, respiration was 20 beats /min general examination was done.

Medical, family, and Psycho-social history: - There were no any medical history of patient's family. Patient belongs to nuclear class family. He is living with his wife and 1 son and daughter Patient maintain good interpersonal relation with family members, relatives and neighbours. Patient have bad habit like smoking, tobacco chewing and alcoholism.His interpersonal interactions with the doctor, nurse, and other patients are excellent.

Relevant past intervention with outcomes: For above mentioned complaints patient was admitted in private hospital to treat a primary complaints of pain in left shoulder after that patient condition could not improve he was emergency referred for further treatment in Tertiary Care Rural Hospital.

Diagnostic Assessment: All the routine investigations were done: Hemoglobin: 14.5gm %, Red blood cells: 4.17, White blood cells: 10000 cells per mm³, MCHC: 30.4, MCV: 63.5, MCH: 22.3, Total platelet count: 2.18 cell/mm³, HCT: 16.4. monocytes count 04, granulocytes 74 and lymphocytes 20, R.D.W. is 13.6 , eosinophils 02 , Basophil is 00. Kidney function and liver function test were done. Obtaining a patient's medical history, performing a physical examination, prescribing medication, and getting an X-ray CT scan to confirm the right scapular fracture with adrenal hematoma diagnosis.

Therapeutic management: Patient was admitted to orthopedic ward for conservative management of fractured left scapular body, left side ribs, liver contusion and right adrenal hemorrhage. All the routine investigation was done. Hemoglobin 14.5gm%. The patient had been investigations, for example, blood test, Physical examination, X-ray, Contrast CT scan of thorax , abdomen and pelvis was done to exclude internal injuries . ECG and X-ray was done which was normal. Patient was started on antibiotics, analgesic, antacid, antiepileptic and another supportive medication. Ultrasonography was done and follow-up after one month .Surgery opinion was taken and patient was advised for conservative management.

Treatment on admission: Inj. Ceftriaxone 1gm IV BD 5Days, Inj. Pantop 40 mg BD 5 days,Inj Neomol 150 mg TDS, Tab.Emsset 4 mg TDS, Inj Levepsy 500mg BD, Inj mannitol 100 ml/QID, Inj Lasix 10 mg/TDS, InjTramadol 50 mg/OD.

Treatment on Discharge: Tab. Ibuprofen 200mg BD, Tab . acetaminophen 650 mg BD, Tab. Tramadol 50 mg OD, Patient was stable and had no active complaints at present. He was able to do self- activities.Hence patient is being discharged.

Prognosis: - After all that investigation and treatment patient condition was improve .
Doctor advised Follow-up and outcome after 1 month .

Outcomes clinical and patient-reported: Despite the most significant efforts of the Patient, their vibrant health will improve, and his health status will improve even more. Follow-up in case of following signs and symptoms patient are requested to attend the emergency department. right scapular fracture with an adrenal hematoma, the patient was given medication by the doctor. In addition, the patient's condition improves as a result of medical treatment; now, the patient's symptoms are reduced, and the patient's health is better.

Discussion:

A 32-year-old male was motor vehicle accident while riding at speed 70 km/hr he was brought to the emergency department in tertiary care hospital and admitted to the orthopedic ward. With chief complaint of pain in left shoulder and tenderness present in left sided ribs. There is no any history of abdominal pain, nausea, vomiting. No history of cold, cough, fever. There is no history of trauma ,previous treatment in hospitalization .In patient no any associated illness were present like diabetes mellitus , hypertension ,tuberculosis, asthma .No any significant past history .In personal history like tobacco chewing habit.⁹⁻¹²

The diagnosis of adrenal hemorrhage can be made by a computed tomography scan of the His CT brain was done after he suffered a left scapular fracture with an adrenal hematoma due to a road traffic accident. The Adrenal gland injury in its case The scenario depicted here was unique in that it included a high-speed motorcycle accidentwith no other injuries. As a result, isolated traumatic unilateral adrenal gland injuries are uncommon.¹³⁻¹⁴

Adrenal insufficiency/crisis, coma, and death are all possible outcomes. It can occur if steroid replacement therapy isn't a viable option started quickly following a bilateral adrenal hemorrhage.⁵ Despite treatment, there is a 15% chance of relapse. Treatment included antibiotics, analgesics, antiepileptic, and other supportive measures are used such as repeat C.T. brain. Currently, the patient is neurologically and vitally stable, Patients will be discharged and follow-up plan after 15 days.

The majority of patients who suffer from unilateral adrenal haemorrhage go unnoticed clinically. As a result, diagnosis is often made by chance during imaging that is being done for another reason.Abdominal pain is the most common presenting symptoms.¹⁵⁻¹⁸

However, if steroid replacement therapy is not started immediately, bilateral adrenal haemorrhage can lead to adrenal insufficiency/crisis, leading to coma and death. Despite treatment, there is a 15% overall mortality rate and a 50% rate if there is no treatment is associated.¹⁸

Conclusion:

A 32-year-old- male came in hospital with above mentioned complaints, in critical condition. On admission patient's complaints thathe was pain in left shoulder and tenderness present in left ribs. On specific investigation patient diagnosed Left Scapular Fracture With Adrenal Hematoma. Conservative treatment was given. After the treatment patient's prognosis was good. Overall Patient had given a positive response to treatment and patient was stable. Hence patient is being discharged. Due to conservative management and quality nursing care patient condition was stable and had no active complaints at present hence patient is being discharged.

Ethical approval : Not applicable

Patient Inform consent : While preparing a case report and for publication patient's informed consent has been taken.

Conflict of Interest : The Author declares that there are no conflicts of interest.

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