





Limak Cyprus Deluxe Hotel, KKTC

# **BİLDİRİ KİTAPÇIĞI**









## Multidisciplinary Challenges in Diagnosing and Managing a Complex Spinal Infection: A Case Study of Severe Back Pain in a Patient with Underlying Comorbidities

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**Introduction and Purpose:** This case study delves into the challenges encountered in the diagnosis and management of a 56-year-old male patient who presented to our emergency department with an abrupt onset of severe back pain. Over the course of 15 days, the pain not only restricted the patient's mobility but also exhibited additional complexities, notably involving the abdomen. Against a backdrop of a notable medical history encompassing hypertension, diabetes, coronary artery bypass, and established coronary artery disease, this narrative unfolds as a collaborative effort of various medical disciplines. The patient's journey encompasses emergency care interventions, surgical consultations, inconclusive infectious disease assessments, and culminates in the revelation of a severe spinal infection through advanced imaging. The intricacies of this case underscore the significance of a multidisciplinary approach in unraveling complex medical presentations, guiding therapeutic decisions, and optimizing patient outcomes.

Materials and Methods: A 56-year-old male patient presented to our emergency department at 7:00 am, reporting acute back pain that started 15 days ago which prevented him from walking. He experiences pain with minimal movement, extending from the abdomen's midsection to the left posterior side. Due to increased abdominal pain, he sought emergency care. The patient has a medical history of hypertension, diabetes, coronary artery bypass, and known coronary artery disease. Vital signs: Blood pressure: 115/70 mmHg, Temperature: 36°C, Heart rate: 70 beats/minute, Oxygen saturation: 99%, Respiratory rate: 15 breaths/minute. Physical examination revealed tenderness in the epigastric region with no rebound tenderness. Laboratory results showed: glucose (203 mg/dl), urea (75 mg/dL), creatinine (1,77 mg/dL), eGFR (42 mL/minute), LDH (225 U/L), ALP (201 U/L), GGT (201 U/L), Amylase (86 U/L), Lipase (66 U/L), Erythrocyte (3,97 10\*6/uL) Hemoglobin (9,4 g/dL), CRP (164.71 mg/L), Procalcitonin (1,38 ng/mL). Urinalysis indicated hematuria and leukocyturia. A CT scan revealed pleural effusion and suspicious calculi in the gallbladder. Despite no signs of cholecystitis, a general surgery consultation was requested. General surgery found no intra-abdominal pathology. An infectious diseases consultation was requested for leukocyturia, but no clear cause was identified. The patient was prescribed oral antibiotics and discharged, then called for a follow-up at 21:00 the same day. Follow-up examinations showed a normal abdominal assessment. Neurological exam revealed no deficit, however bilateral hip extension was assessed as 2/5 in the motor examination of the lower extremities. A rapid MRI was ordered due to suspected vertebral pathology. The CT scans taken earlier that day were reevaluated, confirming thoracic vertebral destruction. The verbal interpretation of the MRI confirmed T10 spondylodiscitis with endplate destruction and an epidural abscess. Neurosurgery recommended operating on the patient as soon as possible. Antibiotic therapy for the epidural abscess included vancomycin and piperacillin-tazobactam.

**Results and Conclusion:** This case study illuminates the complexities involved in diagnosing and managing a severe spinal infection in a patient with a multifaceted medical history. The intricate interplay of symptoms, spanning from acute back pain to abdominal involvement, underscores the challenges inherent in unraveling the underlying pathology. The collaborative efforts of emergency care, surgical consultations, and infectious disease assessments highlight the necessity of a multidisciplinary approach in navigating complex medical presentations.





Figure 2: T10

Figure 1: T10 Spondylodiscitis Spondylodiscitis

Keywords: Severe back pain, Spinal infection, Multidisciplinary approach

# Prognostic significance of blood gas lactate and base deficit values in patients with acute kidney injury admitted to the emergency department

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**Introduction:** Acute kidney injury (AKI) is a serious complication with high morbidity and mortality. The incidence of AKI ranges from 2% in community settings to 20% among hospitalised patients and 60% in intensive care units. Resuscitation efforts in AKI aim to improve tissue perfusion and correct metabolic abnormalities. Elevated lactate levels, a sign of inadequate tissue perfusion, can be used to monitor the risk of AKI development or progression. Base deficit is one of the markers used both to diagnose metabolic acidosis and to guide resuscitation or clinical intervention. This study aims to investigate the prognostic significance of base deficit and lactate levels in patients with AKI.

**Method:** The retrospective study was conducted in the emergency department of our hospital between 01.01.2021 and 30.06.2022. Patients over 18 years of age admitted to the emergency department were included. Acute kidney injury was performed according to AKIN (Acute Kidney Injury Network) staging criteria. The study was completed with 324 patients diagnosed with acute kidney injury. Routine blood samples taken at the time of initial presentation to the emergency department were analysed retrospectively. lactate and base deficit values were determined in blood gas.

**Results:** Of the total 324 patients, 143 (44.1%) were female, 181 (55.9%) were male, and the mean age was 68.6±14.3 years. In-hospital mortality rate was 10.8% (35 patients). There was a statistically significant difference in base deficit values according to the survival status of the patients (p=0.009). The median base deficit values of the surviving patients were -4.6 mmol/L (-24.2 and 25.4); the median base deficit values of the deceased patients were -8.2 mmol/L (-27.3 and 5.5). A statistically significant difference was found in lactate values according to the survival status of the patients (p=0.001). The median lactate value of the surviving patients was 1.47 mmol/L (0.15 and 13.54); the median lactate value of the deceased patients was 2 mmol/L (0.33 and 19.2). It was calculated that there was a statistically significant difference in the lactate and base deficit values of the parameters evaluated according to the outcome status of the participants included in our study

**Conclusion:** Elevated lactate levels are suggestive of tissue hypoxia, depending on whether patients are haemodynamically stable or not, and may therefore serve as a marker for inadequate renal perfusion. Persistent elevation or failure to normalise lactate levels despite treatment may indicate a poor prognosis. Base deficit reflects the degree of metabolic acidosis and may be an indicator of tissue hypoperfusion. Persistent or worsening base deficit may indicate ongoing tissue hypoperfusion. Correcting the underlying cause of metabolic acidosis and monitoring the base deficit may be crucial in the treatment of AKI. It is important to remember that although lactate and base deficiency are valuable markers, they are not specific to ABH and can be influenced by a variety of factors including sepsis, shock and other critical illnesses. Interpretation of these values should be made in the context of the overall clinical picture.

	Living patients	Deceased patients	р	Discharged	Hospitalised	İntensive care/dead	р
Lactate	1.47 (0.1-13.5)	2 (0.3-19.2)	0.001	1,2 (0.4-4.5)	1,4 (0.1-13.5)	2.6 (0.3-19)	<0.001
Base deficit	-4,6 (-24-25.4)	-8.2 (-27-5.5)	0.009	-3,5 (-13-6.3)	-5 (-24.2-25.4)	-8.7 (-27-19)	<0.001

#### Table. Lactate and base deficit

(p<0.001).

P<0.05 was considered significant. Mann Whitney U Test was applied.

## Intubation and tracheobronchial injury: A case Report

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Objective: Endotracheal intubation is commonly performed in emergency departments with considerable well defined complications. But emergency physicians should always be prepared for catastrophic events. Here we represent an uncommon complication in an old female patient to display how to act in tracheal laseration after emergent entubation.

Case Report: A 90-year-old woman was brought to the emergency department after a sudden collapse. Initial vital signs were tension arterial of 180/100 mm Hg, heart rate of 60 beats/minute, a body temperature of 37, 5°C and SaO2 was %80. After intubation, she developed bilateral subcutaneous emphysema suggesting tracheal injury. Bronchoscopy revealed a V-shaped tear posterior side of trachea 5cm proximal to the carina and the tip of ETT was distal to the injury. An observation was made for the tracheal tear in ICU care but the patient died of cerebrovascular hemorrhage 2 days after the event.

Conclusion: Intubation is a simple medical procedure but similar to others, has a considerable risk for complications like the tracheobronchial injury which is a rare, but life-threatening. Diagnosis is Based on clinical examination, bronchoscopy, chest CT. Risk factors for a tracheal laceration in intubation are defined as being female,>50 years old, using double inflation tubes, overinflating, short stature, obesity, corticosteroid use, tracheomalacia, previous tracheotomy. Although surgical treatment is traditionally advised, recent literature discusses that conservative treatment options should be kept in mind.