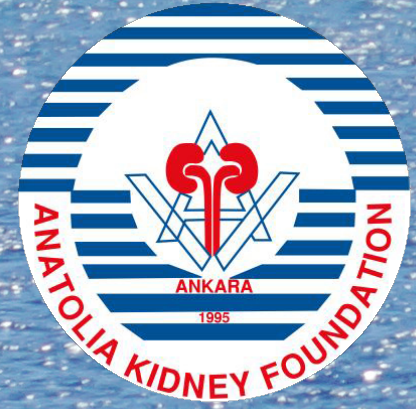


# EIGHTH WORLD KIDNEY DAY 2013



## 2.



## Our Scientific Activities

Ufuk University Conference Hall, 14th March, 2013



✓ Crush syndrome and acute renal failure. M. Yavuz, Uludag University Journal of the Turkish Nephrology Association, 1999;4:163-166: 665 patients were transferred to Uludag University Medical School Hospital, especially first two days hectic in Marmara Earthquake (17th August 1999). 60 people who were hospitalized were treated with dialysis (20%), CSHDF and HD were performed in 12 of them, CSHDF was performed in 2 of them, HD was performed in the others. 21 cases who underwent dialysis (35%) died. Dialysis was performed in the other cases (65%) and in 2 or 48 hours and their renal function returned to normal levels.

✓ Turkey's Crush Syndrome Data in Van Earthquake. Y. Soyoral, the lecture on 6th April 2012: A 7.2 magnitude earthquake, whose epicenter was Erciş occurred at 01.41 p.m. on 23th October 2011. A 5.6 magnitude earthquake, whose epicenter was Edremit (10 kilometers) occurred at 09.23 p.m. on 9th November 2011 (Second earthquake). According to the official source; 604 people died on 23th October 2011 in Erciş Earthquake. 222 citizens were rescued from the rubble alive. 40 people died on 9th November 2011 in Edremit Earthquake, 30 citizens rescued from the rubble alive. 7 hospitals became unusable in the first earthquake in Van so all the patients were treated in Regional Training and Research Hospital which was established three months before. This hospital was damaged too in the second

earthquake so health care professionals served in tents. Patients who came out from the rubble were referred directly. Totally, 118 patients were followed-up by a team of Nephrology (89 patients in Van, 29 patients in Erzurum). 26 of them were referred. According to these criteria, there were 53 (44.9%) patients with renal problems.

**Causes of Death Patients with renal Problem:** Hemopneumothorax, retroperitoneal bleeding: 2, Hyperkalemia: 2, intracranial hemorrhage: 1, Shock due to intraperitoneal bleeding, pneumothorax: 1, Hemorrhage, sepsis: 3, Sepsis: 1, Total: 10 (18.8%).

**Patients who were under the rubble for a long time:** 13 year old, male, was removed from debris after 108 hours and 19 year old, male, was removed from debris after 107 hours. Result: 118 patients were followed-up. There were nephrological problems in 53 patients. 18 patients were in need of HD (34%). 10 of them died (18.8%), 4 of 10 patients died in need of HD and all of them were male. Longest residence time under rubble was 108 hours. The systolic and diastolic tension being low, the existence of abdominal trauma and the level of CK are determined to be related factors of death. No patients developed KBY. We sadly lost people of Van, our teachers, journalists and our Japan friend.



Recommendations for the management of CRUSH victims in mass disasters. Sever M.S., Vanholder R., Dial. Transplant. (2012) 27



**Conclusion** We should record Acute Kidney Disease in someway. A software should be created in order to record data as soon as dialysis cases occur. The importance of Acute Kidney Disease is that it is a reversible event. A life can be saved. So we say: "Stop Acute Kidney Disease".



Assoc. Prof. Beril Akman, M.D. Ankara Güven Hospital Nephrology Unit

### Cases of acute renal failure in Turkey

2007: Number of centers: 59, number of applications to the center in a year: 112.169, the number of patients with a diagnosis of acute renal failure: 5498, male: 54%, female: 46%, age: 57.2. The age distribution of patients with acute renal failure in 2007: 0-15: 0.3% 16-19: 2.9% 20-44: 17.1%, 45-64: 36.5%, 65-74: 28.5%, 75 +: 14.6%. Etiology: Hypovolemia: 17.5%, cardiovascular failure: 16.1%, urinary tract obstruction: 8.9%, sepsis 10.6%, 10.1% acute tubular necrosis-postischemic, acute tubular necrosis-nephrotoxic: 9.9%, unknown origin: 11%, other: 15.8%.

Causes of acute renal failure in reported studies in Turkey: Rhabdomyolysis: an earthquake-CRUSH syndrome, Antilipid therapy (statin and fenofibrate), Sepsis: Leptosira, parvovirus B19, prostatitis, Cardiovascular Events and Transactions: Contrast-induced nephropathy, postoperative acute renal failure, CHF / AMI, intoxication: vancomycin, aminoglycosides, rifampin, Other: Favism, HELLP syndrome, hemodialysis due to HUS / TTP/CHD, PNH, hypercalcemia, snake bites, retroperitoneal fibrosis, cosmetic surgery procedures, malignancies (GIS, AC), tumorlysis syndrome and other obstetric reasons etc.

## Approaches to Acute Kidney Injury

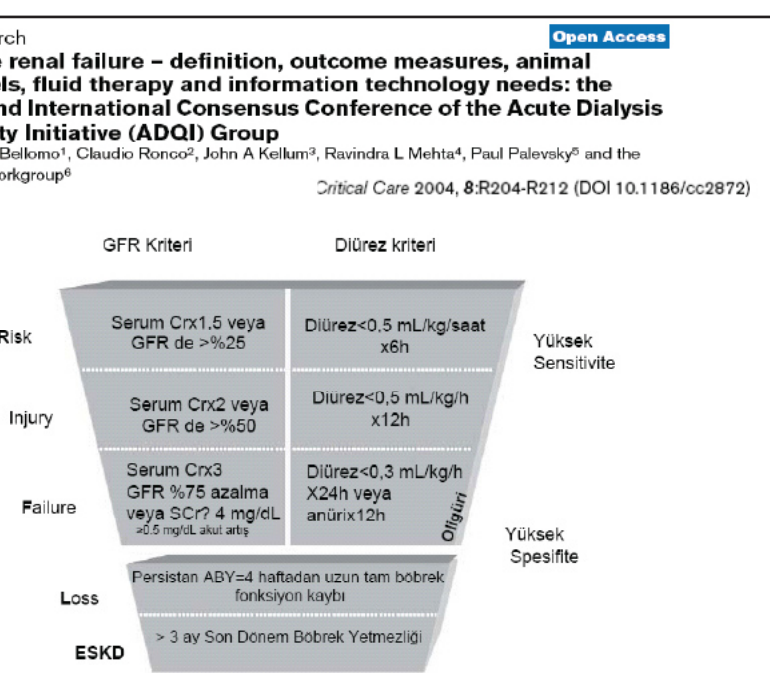
## Round Table

## Approaches to Acute Kidney Injury

### Approach to Acute Kidney Injury In Intensive Care Units



Assoc. Prof. Yakup EKMEKCI, MD Private Güven Hospital Nephrology Section



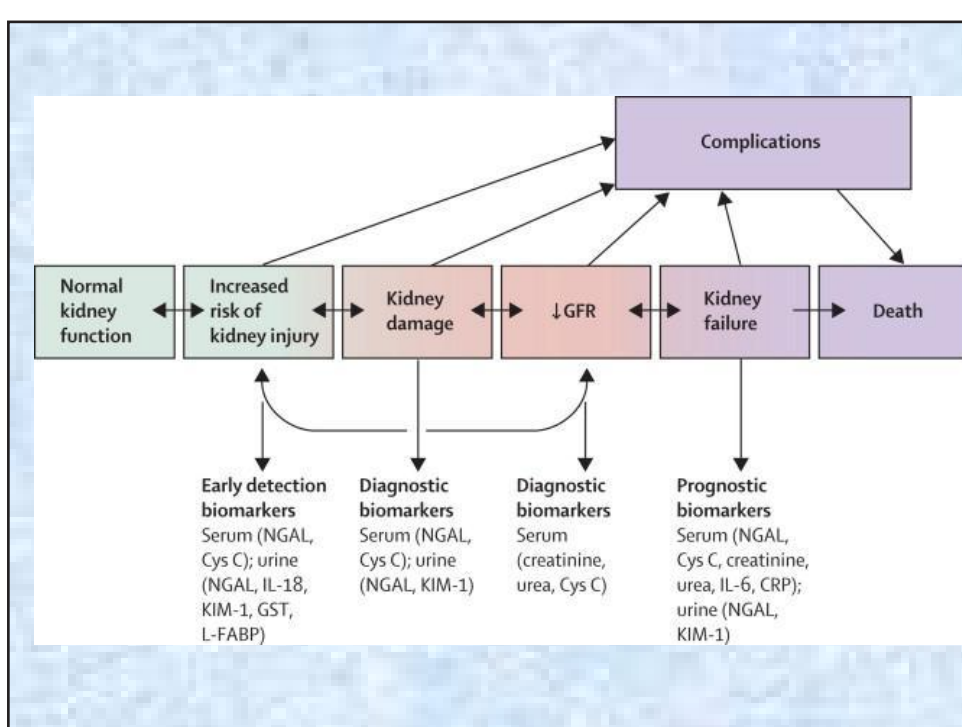
### Acute Renal Failure in Emergency Unit



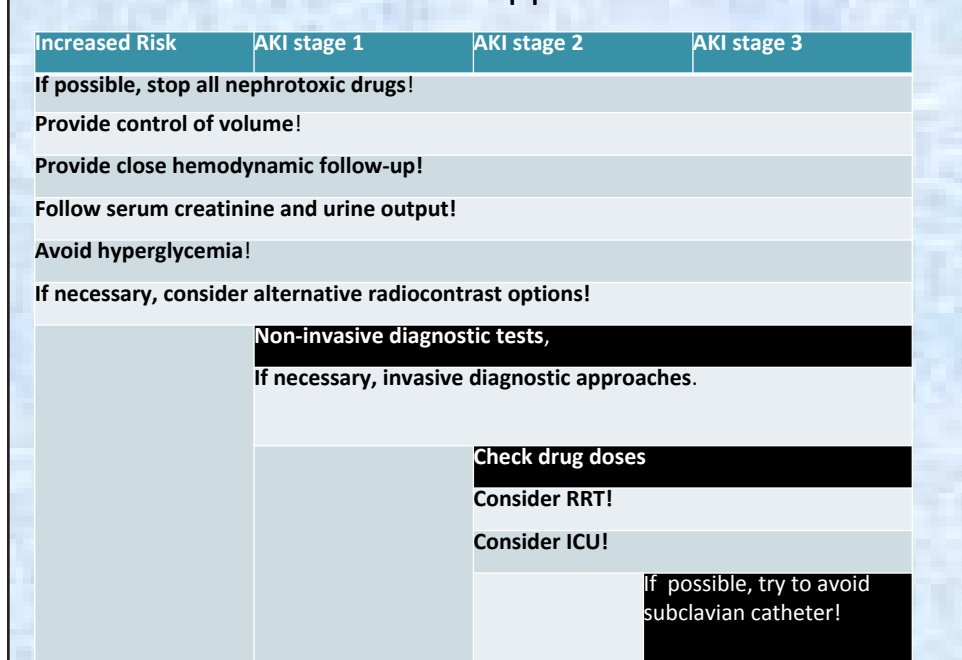
Assoc. Prof. Başol Canbakan, MD Ankara Numune Training and Research Hospital Internal Diseases Clinic

### Importance

•Regardless of the underlying reasons, minor acute changes in serum creatinine are the indicators of significant deterioration in renal function and the accompanying bad results.



### Treatment Approach



### Result

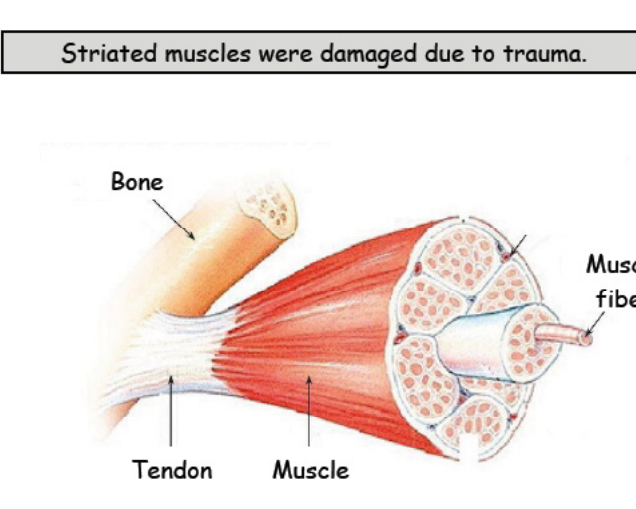
•Emergency physicians should consider the possibility of incipient AKI in all the critical patients.  
•Even minimal elevations in serum creatinine levels should be considered to have negative effects.  
•Patients at risk should be determined as soon as possible.  
•Fluid and hemodynamic resuscitation should promptly be initiated, patients should be monitored closer.  
•There is no curative treatment of AKI. Effective treatment of the underlying disease accelerates the healing process.  
•Secondary protection is essential for the discontinuation of nephrotoxic drugs.



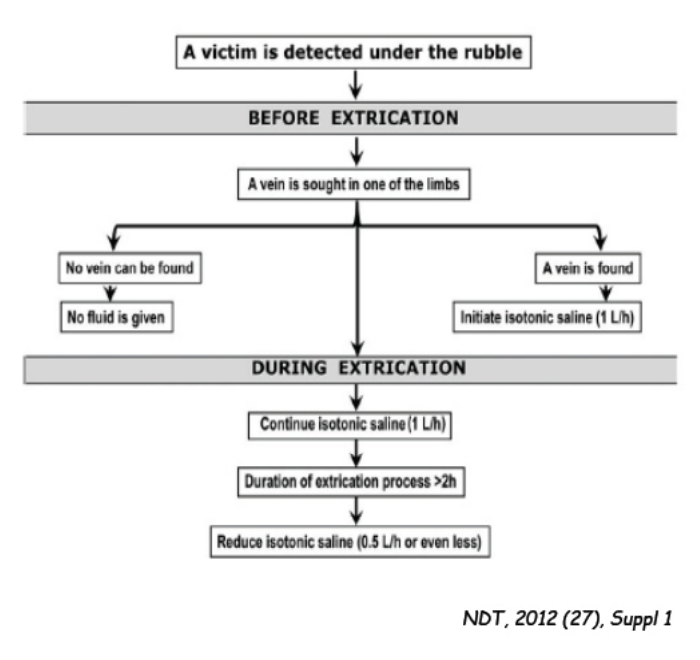
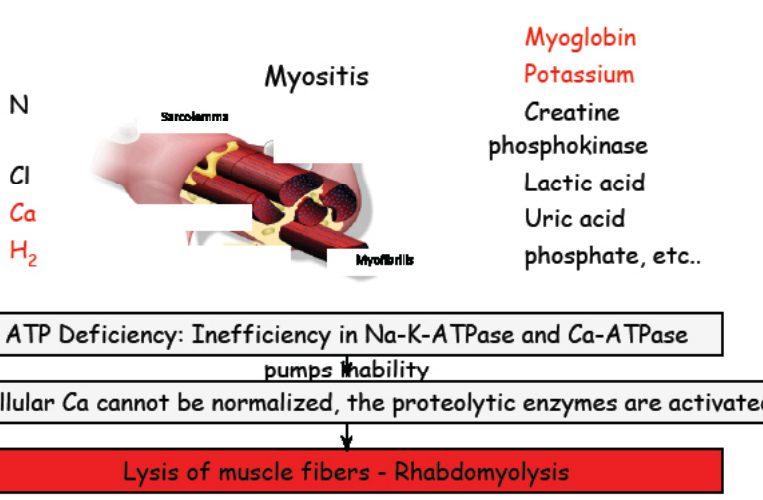
Assoc. Prof. İhsan Ergün, MD Ufuk University Medical School Nephrology Section



### CRUSH Syndrome

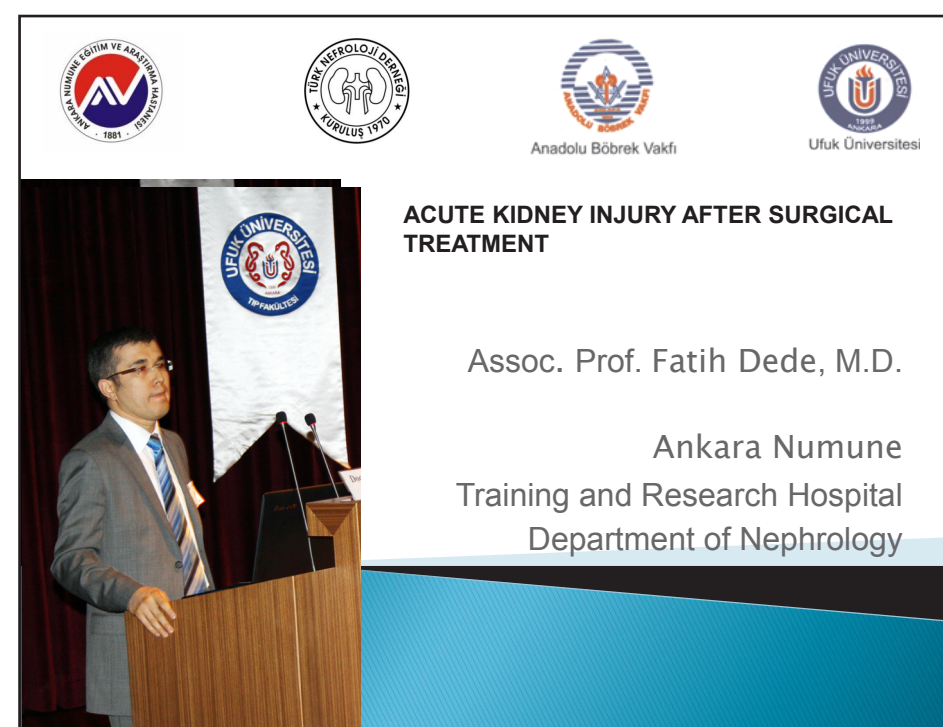


### Permeability of sarcolemma may be deteriorated in beromyopathy.



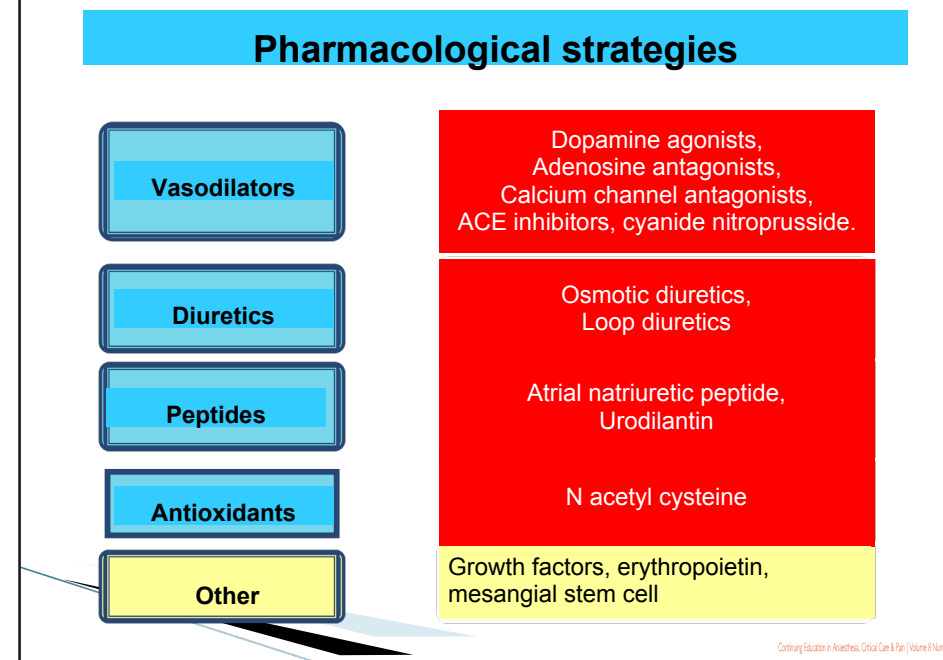
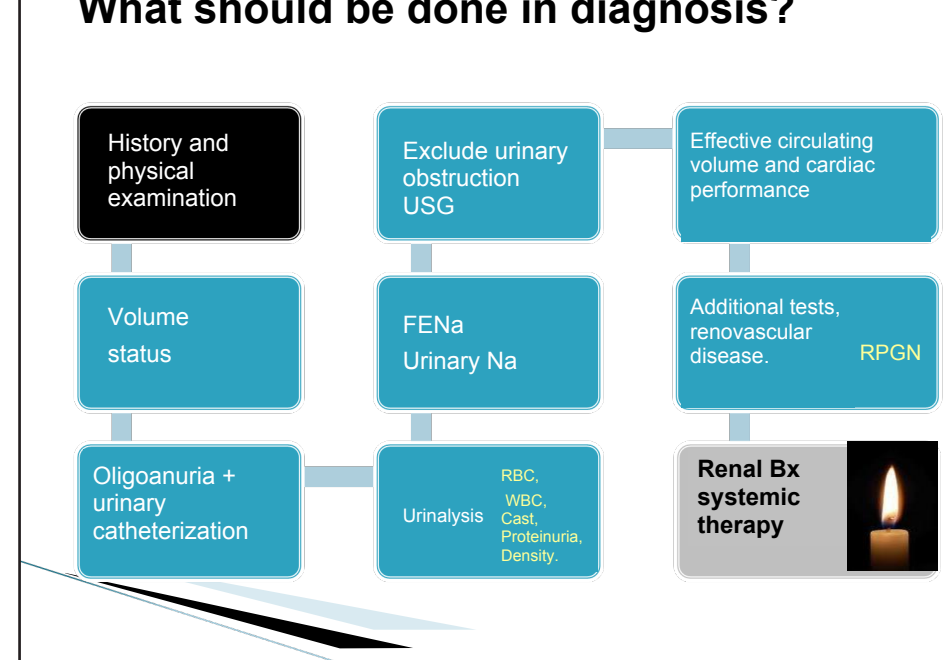
### Many patients with crush injury die from wound infections

Head trauma	Staphylococci	Clostridia	Amplidicidolactones
Musculoskeletal Injuries	Staphylococci	Clostridia	Amplidicidolactones
Open Wounds	Staphylococci, streptococci	Clostridia	Amplidicidolactones
Abdominal injury	Staphylococci, streptococci, anaerobes	Clostridia + Microsporidia	Amplidicidolactones
Brain Injuries	Staphylococci, Clostridium perfringens	Clostridia	Amplidicidolactones
Fractures	Staphylococci, Clostridium perfringens, streptococci	Clostridia + Clostridia	Amplidicidolactones
Crush with IAH	Staphylococci, anaerobes, Pseudomonas aeruginosa	Clostridia	Amplidicidolactones
Blunt	Staphylococci, anaerobes, Pseudomonas aeruginosa, streptococci, fungi	Tripod aerobes	Amplidicidolactones



**ACUTE KIDNEY INJURY AFTER SURGICAL TREATMENT**  
Assoc. Prof. Fatih Dede, M.D. Ankara Numune Training and Research Hospital Department of Nephrology

**Why is it important?**  
•Duration of hospitalization,  
•Increase in the risk of infection,  
•Cost  
•Increase in mortality (7-8 times),  
•Chronic Kidney Disease,  
•Dialysis dependence.



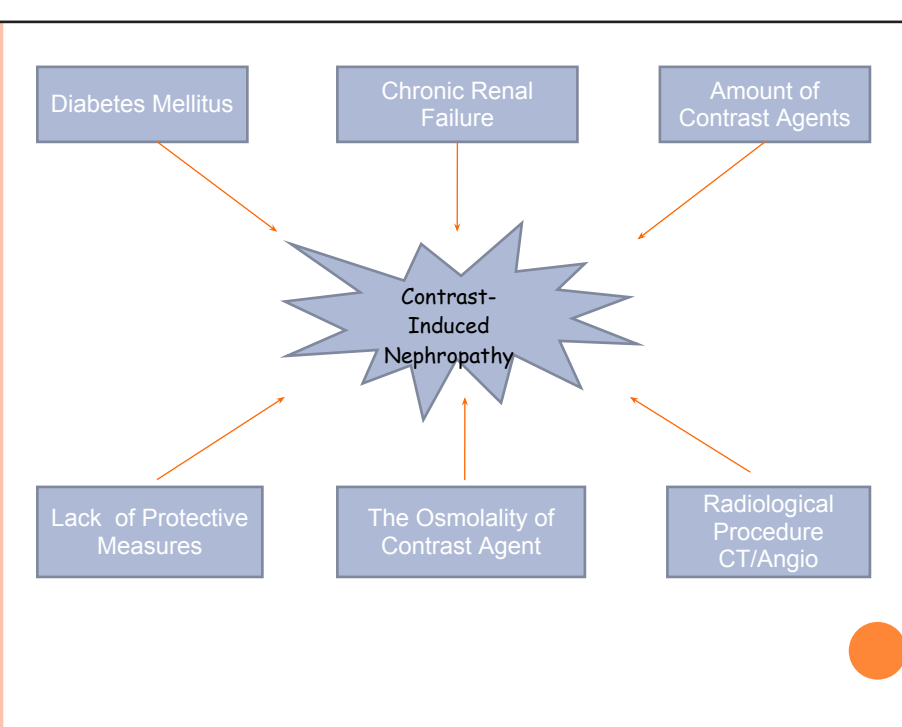
### CONTRAST- INDUCED NEPHROPATHY



ASSOC. PROF. TAYFUN EYLETEN, MD GULHANE MILITARY MEDICAL ACADEMY NEPHROLOGY SECTION, ANKARA

### DESCRIPTION

Acute kidney injury after administration of intravenous radiopaque agent in the absence of other causes that can lead to kidney failure. In many studies it is accepted as a 25% increase in serum creatinine (Scr) from baseline or 0.5 mg/dL increase in absolute value, after 2-5 days of intravenous contrast administration.



### PREVENTION OF CONTRAST-INDUCED NEPHROPATHY

Doubtful benefit  
Mannitol  
Diuretics  
Dopamine  
Fenoldopam  
Atrial natriuretic peptide  
Endothelin receptor antagonists

### NEPHROGENIC SYSTEMIC FIBROSIS (NSF)

For the first time Philip Le Boit defined cutaneous disease in hemodialysis patients as Scleromyxoedema in 1997. SE Cooper published a series of 15 patients in Lancet in 2000. Initially it was called nephrogenic fibrosing dermopathy. When scientists detected subcutaneous tissue, skeletal muscle, diaphragm, pleuro, pericardium and myocardial involvement, it was renamed as NSF.

