



Department of Internal Medicine
TTUHSC - El Paso
(Continued)

like cranial nerves and the optic apparatus. Surgical clipping in a swollen brain can be a challenging surgery that requires a great level of neurosurgical expertise. In 1991, a new less invasive modality was introduced through endovascular microcatheterization of the aneurysm and packing (sealing) of aneurysmal sac with electrolytically detachable coils. The endovascular coiling technique rapidly became popular in part because of its less invasiveness compare with surgical clipping. However, there were concerns about the efficacy and durability of the coiling procedure. These concerns motivated the researchers to do a randomized comparison between these two techniques in patients with aSAH carrying intracranial ruptured aneurysm amenable to treatment with either modality (International Subarachnoid Aneurysm Trial). At one year the incidence of death and severe disability in the coiled group was significantly smaller and the trial was prematurely stopped. In up to 14 years of follow up of these patients, the coil proved to be durable over time. The incidence of late rebleeding in the coiled group is low and the long term mortality is the same for both groups. ISAT turned out to be a milestone in the treatment of aSAH. Since the early 90's, extensive advances have been realized in endovascular technique. In particular, aneurysms initially judged as untreatable through endovascular means are currently treated thanks to the balloon remodeling and stent assisted techniques. However, not all aSAH benefits from endovascular coiling. Surgical clipping still is an excellent option for certain types of ruptured intracranial aneurysm. *An evidence based discussion should always be in place between the treating neurosurgeon and the treating neurointerventionalist to deliver the best treatment option to a specific patient.*

Take home points:

- A high level of suspicion for aSAH is warranted in all patients with acute onset of severe headache.
- Recognition of a warning aneurismal leak (sentinel bleed) can save lives.
- The traditional dismal prognosis associated with aSAH has improved in the last decades in part due to more recognition of the disease, better ICU care, and new therapeutic options.
- Early addressing of the most common neurological complications, including vasospasm improves outcome.
- Hospitals that have a rapid access to neurointerventional treatment can deliver a better outcome to subarachnoid hemorrhage patients.



TITLE: THE ASSOCIATION BETWEEN LEAD EXPOSURE AND KIDNEY DISEASE

Speaker: German Hernandez, MD, Assistant Professor of Medicine, Department of Internal Medicine, Texas Tech University Health Sciences Center, El Paso

Introduction: It is estimated that 26 million Americans have chronic kidney disease (CKD). CKD carries a high risk for cardiovascular morbidity and mortality and can also progress to end-stage kidney disease (ESRD), requiring life-saving therapy with dialysis or transplantation. In the USA, racial/ethnic groups carry a disproportionate burden of CKD and are at higher risk for progression to ESRD.

Exposure to the heavy metal lead may contribute to the progression of CKD regardless of the etiology of CKD. Racial/ethnic minorities in the USA have a higher risk of exposure to lead.

During this Medicine Grand Rounds, data was presented examining the association between lead exposure and kidney disease at the national population level and among patients with CKD in Taiwan.

Also, our own research data was presented, examining the prevalence of lead exposure among predominantly Mexican American patients with CKD in the El Paso Region.

Objectives. As a result of attending this activity, the attendee will be able to:

- Explain the association between low-level lead exposure and the progression of chronic kidney disease (CKD) regardless of the primary etiology.
- Discuss the epidemiology of blood lead levels and kidney function among patients with CKD in the El Paso region.

Discussion: Lead is a known nephrotoxicant at high levels of exposure. There is a growing body of literature linking lower levels of lead exposure with decreased kidney function. Among patients with CKD (CKD from etiologies other than lead itself) in Taiwan, exposure to low levels of lead from the environment appears to act as a risk factor for progression of CKD. A small Taiwanese randomized placebo controlled trial of lead chelation has shown that treatment with Ca-EDTA can decrease the rate of progression of CKD.

Our own study, the Paso del Norte Kidney Disease (PNKDS), shows that among predominantly Mexican American patients with CKD, all have measurable levels of lead exposure. Among patients with non-diabetic CKD, there is strong inverse correlation between higher blood lead levels and lower estimated glomerular filtration rates.

Conclusions/take home points

- Studies from Taiwan strongly suggest that low level lead exposure may be a risk factor for the progression of CKD regardless of the etiology; however more research is needed to confirm this initial finding.
- Among patients with CKD in the El Paso region, there is evidence of lead exposure. Among the non-diabetics patients with CKD, there is strong and significant cross-sectional association between higher blood lead levels and lower kidney function. It is our aim to study this question further in a longitudinal study.



TITLE: RURAL-URBAN DIFFERENCES IN SURGICAL CARE

Speaker: Mark Francis, MD, Professor, Division of Rheumatology, Department of Internal Medicine, Texas Tech University Health Sciences Center, El Paso

Introduction: Because people in rural areas generally live farther

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