

# RENAL MANIFESTATIONS OF NON-RENAL DISEASE

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# INTRODUCTION - 自我介绍

- ▶ American pediatrician - 美国儿科医生
- ▶ Lived in China for 22 years - 在中国生活22年
- ▶ Married for 28 years (prettiest surgeon in Northwest China!) - 结婚28年（中国西北最美的外科医生）
- ▶ Two daughters (23 and 17 years old) - 有两个女儿（一个23岁，一个17岁）

# FAMILY - 家庭



# OBJECTIVES

- ▶ Participants will understand the importance of thinking about the kidney when facing disease states such as diabetes, HSP and spina bifida.
- ▶ Participants will develop a plan for first steps evaluation and nephroprotection in the above mentioned disease states.

# ABSTRACT

The kidney is affected by a variety of disease states. Some are intrinsically renal in origin but many are not. The generalist can be expected to see patients with diabetes, HSP or spina bifida in the course of a normal practice. All of these affect the kidney in different ways. This talk will cover the primary reno-protective measures a primary care physician can employ to make sure the patient's kidney will last as long as possible in these disease states.

# INTRODUCTION

## DIABETES

Diabetes in Children

Clinical findings

Renal protection

## QUESTIONS?

# DIABETES IN CHILDREN

- ▶ Obesity is increasingly becoming a disease of younger and younger people.
- ▶ IDDM is most commonly linked to renal disease
- ▶ NIDDM is increasing in adolescents
- ▶ Proteinuria on urinalysis
- ▶ No edema on physical exam

# MICROALBUMINURIA

- ▶ Can occur in both insulin and non-insulin dependent diabetes
- ▶ Not massive proteinuria
  - ▶ protein:creatinine is low (usually total of 30-300mg albumin/g creatinine)
  - ▶ albumin is normal
- ▶ Due to protein leak at the tubule, not at the glomerulus
- ▶ Slow decline in GFR, leads to CKD over years
- ▶ Most patients present after years of diabetic disease - 15+



# HEMATURIA

- ▶ Unusual
- ▶ When present, think glomerular leak
- ▶ Adults have ticks and fleas - Think about other causes of renal disease - IgA, membranous, etc.
- ▶ Biopsy shows mesangial proliferation, glomerular sclerosis

# RENAL PROTECTION

- ▶ Consider ACEI to protect the tubules
- ▶ Monitor blood pressure and treat accordingly
- ▶ Control diabetes to slow progression of renal disease
  - ▶ Weight reduction
  - ▶ Lipid control (rarely needed in peds)
- ▶ No protein restriction (in peds)

# MONITORING

- ▶ Yearly screens for proteinuria in all diabetics
- ▶ q3 Month check of protein:creatinine ratio for patients with demonstrated proteinuria
  - ▶ Goal is less than 1000mg/day protein excretion (less than 500 is even better!)
- ▶ Blood pressure monitoring
- ▶ Follow potassium in patients on ACEI or ARB

# QUESTIONS? 提问题?



FIGURE: