UROLITHIASIS

Two Aspects
Management of clinical stone
Metabolic evaluation/prevention (medical Rx)

Types of stones
Ca oxalate  75-80%
Ca phosphate  5-10%
Uric acid  5%
Struvite  5%
Cystine

STONE MANAGEMENT

Presentation
Pain
Hematuria
Bladder symptoms- suggests stone at UV junction or associated UTI
Fever- with or without infection

Evaluation
Urinalysis
KUB
IVP vs “CT-IVP” Latter costs more but is faster, safer, & shows non-opaque stones
Ultrasound  Of no value for ureteral stones, limited for renal stones

Ureteral stones (80+% of clinical stones)
<4 mm  80-90% pass spontaneously
4-6 mm  50% pass
>6 mm  20% pass

Indications for intervention
Stone too large to pass
Intractable pain or vomiting
Fever
Prolonged obstruction or lack of progress
Socio-economic***

Treatment Modalities
Ureteroscopic with ablation( EHL, laser etc.) and/or extraction- ureter and kidney
ESWL- stone burden under 2 cms.
Open surgery
Treatment for kidney stones same plus PCNL, esp stones over 2 cm diameter

ESWL= extracorporeal shock wave lithotripsy
PCNL= percutaneous neprostolithotomy