RENAL CALCULI IN PREGNANACY

- MOST COMMON CAUS EOF ABD PAIN
- PRE-ECLAMPSIA,UROSEPSIS,PREMATURE LABOUR
- ULTRASOUND FIRST DIAGNOSTIC MODALITY
- 70-80% PASS

STONE FORMATION

INCREASED URINARY STASIS

CHANGES TO MINERAL COMPOSITION OF URINE

GESTATIONAL HYDRONEPHROSIS 90 % 3RD TRIMESTER GFR AND IMPACT OF GRAVID UTERUS

HYPERCALCIUREA DRIVEN BY GFR AND INCREASED FILTRARION OF CA FROM BLOOD PLACENTAL 1,25 DIHYDROXYCALCIFREOL

BUT INCIDENCE OF STONES SIMILAR TO GENERAL POPULATION

RADIATION

RISK TO THE EMBRYO WITHIN FIRST FEW WEEKS “ALL OR NOTHING”

TERATOGENICITY AND INTELLECTUAL DEFICIT 2- 25 WEEKS BUT ESP 8-15 DUE TO NEURONAL DEVELOPMENT

INCREASE IN CHILDHOOD CANCERS

DIAGNOSIS

STUDY SHOWED 28% OF PATIENT SEEN IN A+E WITH RENAL COLIC WHERE INITIALLY DIAGNOSED WITH SOMETHOING ELSE

IMAGING ESSENTIAL

ULTRASOUND BUT ONLY 45% IN URETERIC CALCULI
IMPROVED WITH DOPPLER LOOKING AT URETERIC JETS 100% AND 70% IF OBSTRUCTED

MRI SAFE IN PREGNANCY

MAG 3 LOW DOSE RADIATION TC99 (VQ SCANS) WILL HELP DISTINGUISH BETWEEN PHYSIOLOGICAL AND OBSTRUCTIVE HYDRONEPHROSIS

CT IMAGING

- CT KUB GOLD STANDARD
- LAST DIAGNOSTIC LINE BUT IN AN UNWELL /SEPTIC PATIENT ESP IN SECOND AND THIRD TRIMESTER MAY BE NECESSARY EXPOSURE SHOULD BE LESS THAN 0.05Gy
- MEDICO-LEGAL , ANY DIAGNOSTIC IONISING RADIATION MUST BE DISCUSSED WITH THE MOTHER LOW DOSRE UNLIKELY TO HAVE AN EFFECT ON FEOTUS BUT THERE IS UNCERTAINITY

MANAGEMENT

- CONSERVATIVE IN ALL NON COMPLICATED CASES
- IF INTERVENTION PERC NEPHROSTOMY OR JJ STENTING
- CAN CONSIDER URETEROSCOPY TO AVOID LONG TERM STENTING
- REGULAR FOLLOW UP UNTIL STONE REMOVED , HIGHER ENCRUSTATION TENDENCY OF STENTS DURING PREGNANCY

CHILDREN

- INCREASING IN DEVELOPED COUNTRIES
- !% OF STONE CASES <18 YEARS OLD
- HIGH RISK OF RECURRENCE
- METABOLIC EVALUATION BASED ON STONE ANALYSIS
- NON METABOLIC CAUSES VV REFLUX ,PUJ,NEUROGENIC BLADDER

CHILDREN

- ULTRASOUND FIRST LINE IMAGING THEN CONSIDER NCCT
- TREATMENT C.F ADULTS
- POST SWL PASS FRAGMENTS MORE EASILY