



# ***NEEDLE IN THE HAYSTACK***

Dr. Prathyusha

*Dr. Janani Sankar*

*Dr. V.K.Sairam*

*KKCTH*

# BRIEF CASE SUMMARY

**7 yr old male child**

- ⦿ **BIPHASIC FEVER**
- ⦿ **ABDOMINAL PAIN**
- ⦿ **VOMITING**



**5 days**

# AT ADMISSION

- **Afebrile**
- **Lethargic**
- **Flushed extremities, well perfused**
- **Soft, tender hepatomegaly**
- **B.P (manual) – 130/90 mmHg**  
**Rechecked NIBP – 110/80 (78 mmHg)**
- **Weight and height – 25<sup>th</sup> centile**

# DIAGNOSIS

***PROBABLE DENGUE WITH WARNING  
SIGNS***

# INVESTIGATIONS

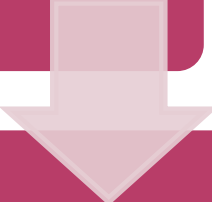
- ⦿ **T.C – 3600 cells/cumm.**
- ⦿ **Hb – 13.6gm/dl.**
- ⦿ **PCV – 40%.**
- ⦿ **PLATELET – 95,000 cells/cumm.**
- ⦿ **SGOT – 170.**
- ⦿ **SGPT – 111.**

# TREATMENT

- ⦿ **IV fluid**
- ⦿ **IV antiemetic**
- ⦿ **Regular monitoring of HR/BP**

# 36 HRS AFTER ADMISSION

Persistent vomiting with abdominal pain  
Urine output decreased,  
Right hypochondriac tenderness ++  
Features of third spacing



**AFEBRILE PHASE**

**Plasma leakage ?EVOLVING SHOCK**



Well perfused.

Manual BP - 140/100 mmHg!!

# REVIEWED NIBP RECORDING

- ⦿ 132/97 [102]
- ⦿ 120/82 [92]
- ⦿ 123/93 [105]
- ⦿ 121/97 [104]
- ⦿ 125/79 [95]

7yr, Ht- 123cm

95<sup>th</sup> centile-110/71

99<sup>th</sup> centile-114/75





Dengue fever  
Third spacing

Hypertension??!!

?? APIGN

# INVESTIGATIONS

- **Repeat PCV – 49%**
- **Dengue NS1, IgM, IgG – positive**
  
- **Renal function test – normal**
- **Urine microscopy/dipstick – normal**
- **Spot urine protein – normal**
- **Spot urine creatinine – normal**
- **Chest x-ray – normal**

# USG ABDOMEN:

- Hepatomegaly.
- Free fluid in abdomen with GB wall thickening.
- Minimal bilateral pleural fluid.
  
- RIGHT KIDNEY -mildly enlarged in size (9.4cm) with normal echotexture.

***LEFT KIDNEY - NOT VISUALISED!!***

# FURTHER WORK UP

- ⦿ **Nephrologist consultation**
- ⦿ **Dengue fever – managed with IV fluid and PCV monitoring as per protocol.**
- ⦿ **Started on Nifedipine, later atenolol was added.**

# WORK UP:

- ⦿ **DMSA scan**

  - confirmed the absence of left kidney**

  - presence of normally functioning **solitary right kidney.** (no scar/no ectopic kidney)**

- ⦿ ECG, ECHO - Normal.
- ⦿ eGFR - 84.6%
- ⦿ Fundus examination - Normal.
- ⦿ Thyroid profile - Normal.
- ⦿ Renin - 11.2 (high)

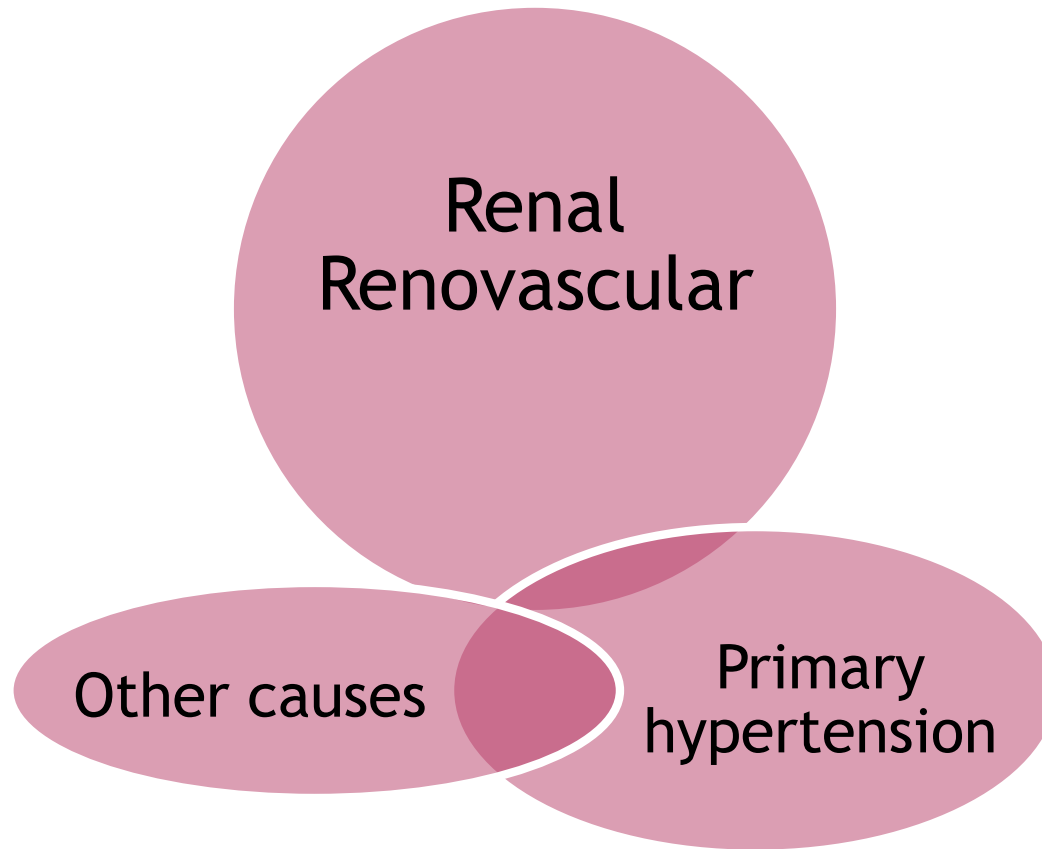
# FOLLOW UP:

- Presently on nifedipine.
- Blood pressure under control.
- **CT Renal Angiography** to rule out Renal Artery Stenosis has been planned.

# DISCUSSION



# CAUSES OF HYPERTENSION IN A CHILD

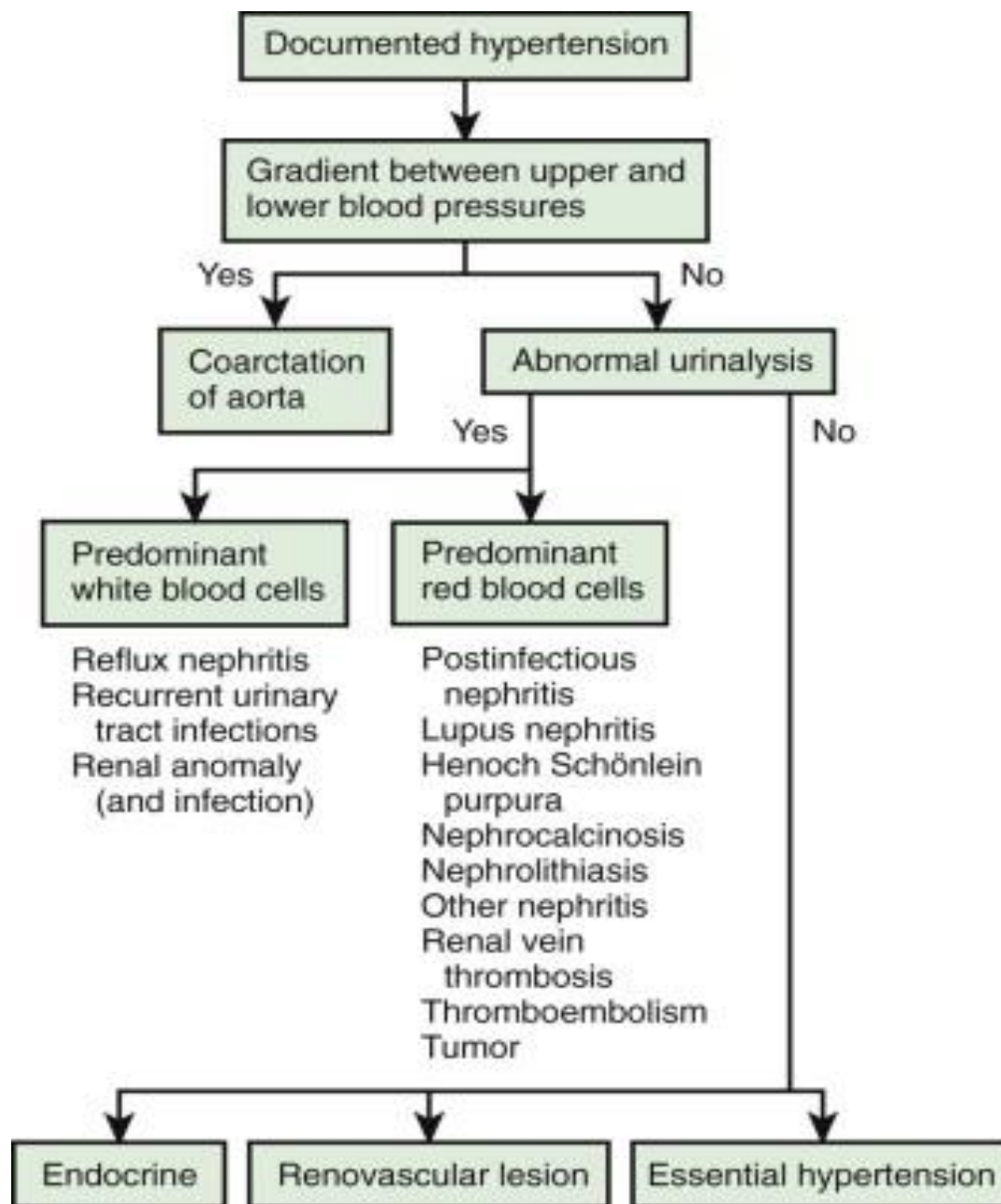


# SCREENING FOR HYPERTENSION

- ◉ Any child >3yrs of age.

## AT RISK CHILDREN:

- ◉ VLBW, preterm.
- ◉ Malignancy, posttransplant.
- ◉ Recurrent UTI/known renal or urological disorders
- ◉ Congenital heart disease.
- ◉ Family h/o congenital renal disorders
- ◉ Neurofibromatosis, tuberous sclerosis, ambiguous genitalia.



# PEDIATRICIAN'S ROLE:

- ◉ Recognise the children with risk factors
- ◉ Monitor blood pressure and manage hypertension aggressively.
- ◉ Treat UTI aggressively.
- ◉ Avoid nephrotoxic drugs.
- ◉ Avoid contact sports.
- ◉ Regular follow up with Nephrologist.

# THANK YOU

