- Phyu Phyu Khaing

- Saw Win , Hnin Thuzar Aung , Shin Moe Thu , Than Than Aye , Aye Thida Than , Khin Mg Oo , L Jaryong , Thaw Thaw Lin , Le Wah Wah , Thida Myint , Aung Myo Min , Khin Thiri Kyaw , Nway Nway Tun Kyi , Soe Thiri , Khine New Win.

A five year retrospective study of Kawasaki Disease in children admitted to Parami General Hospital

Introduction

- Kawasaki disease is an acute febrile necrotizing vasculitis of the medium and small-sized vessels,
- Formerly known as mucocutaneous lymph node syndrome or infantile polyarteritis nodosa,
- first described by Dr. Tomisaku Kawasaki in Japan in 1967
- Leading cause of Acq; Ht Dis in Developed countries

- Predominantly occurring in children aged 6 months-5 years,

- The importance of this disease is a life threatening condition to involve coronary arteries and development of Acquired Ht Dis:

Diagnostic criteria

Accepted criteria from CDC,

A patient with fever of

5 or more days and the presence of

at least 4 of the following 5 clinical signs:

- A pneumonic **FEBRILE**

- **F**ever
  Peripheral **E**xtremities changes - Erythema, Edema,
  Buccal mucosa changes,
  Rash,
  I (gnore),
  Cervical **L**ymphadenopathy (at least 1.5 cm in diameter) ,
  Eyes - Bilateral nonpurulent conjunctivitis

- **Non specific CF in order of frequency**

- Irritability
- Vomiting
- Reduced intake
- Corysal symptoms
- Abdo pain
- Jt pain

- **Supportive Lab: Findings**

- Thrombocytosis
- Neutrophilia
- Raised CRP & ESR
- Anemia
- CXR= 50% abnormalities
- USG abdo= Hydrop of the GB

Atypical / Incomplete KD

Fever × 5D + only need 2 or 3 principal criteria

More common in infants

The Importance of this is asso: with higher risk of aneurysm.

So that Echo shd be considered in any infant less than 6 mo with fever more than 5 D & lab evidence of inf: & no other reason for fever.

Etiology

Unknown

Several Hypothesis

- Infectious
- Immune
- Genetic

Aim of study

(1) To review the profile of confirmed cases of KD admitted to Parami General Hospital in last 5 years.

(2) To analyze the treatment and outcome of KD cases

Method

- Hospital based retrospective cohort descriptive study of children diagnosed with Kawasaki Disease from 2012 – 2017.

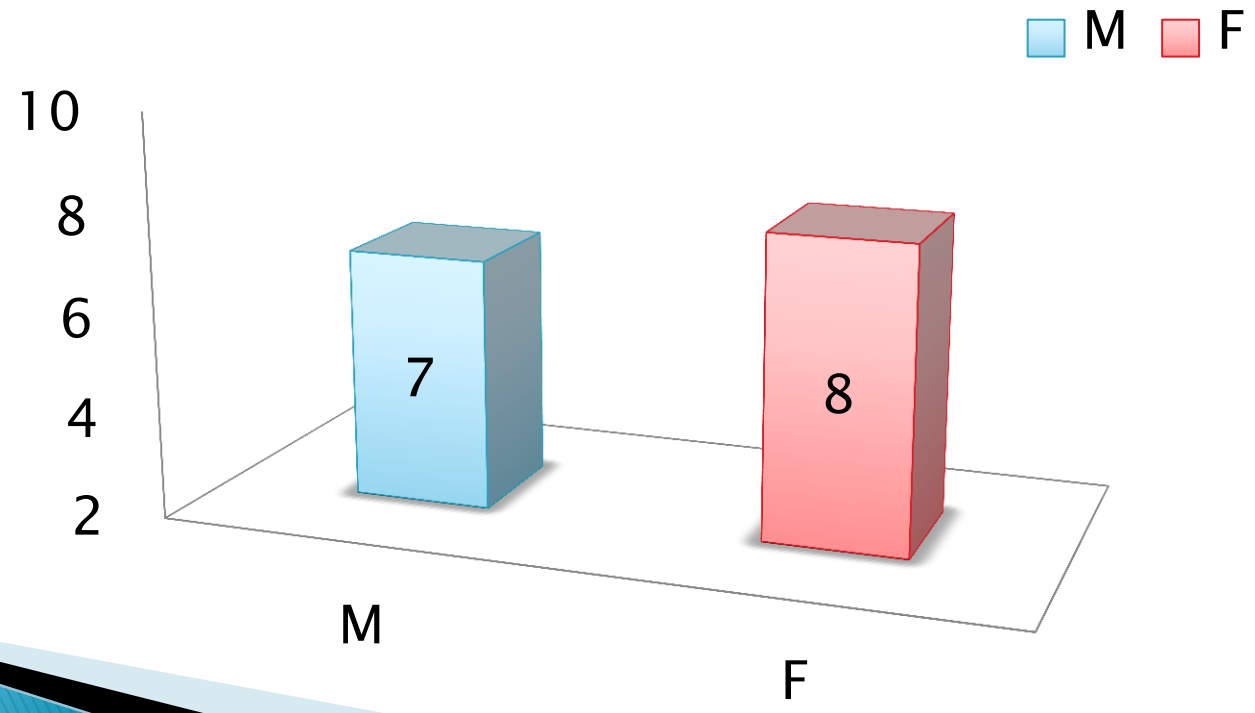
- During the study period cases were diagnosed with both clinical and laboratory criteria.
- Statistical software Stata (12 version) was used to calculate frequency distribution and percentage of variables.

Results

- Total no: of 15 children were fulfilled the criteria

  F = 8 M = 7

  F:M=1.14: 1



Age and age group distribution

preschool children of 3.5mo to 59 mo with mean& median age of 19.1mo& 14 mo

Fig 2. Frequency Distribution of age group of children admitted with KD

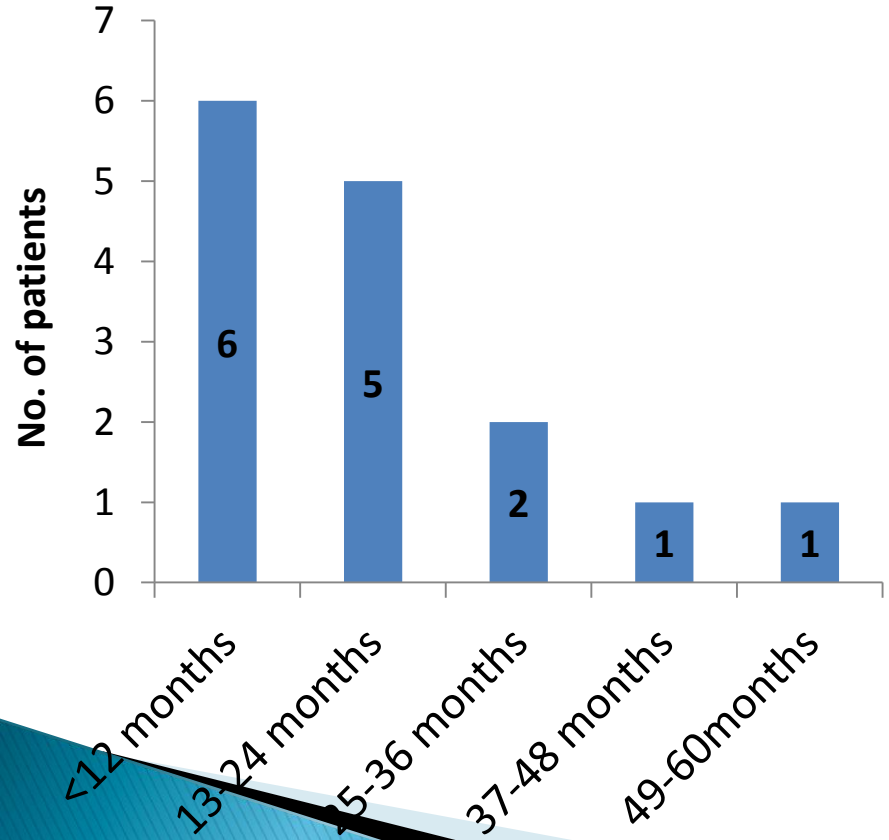


Fig 3. Age Distribution of children with KD admitted to Parami General Hospital (in months)

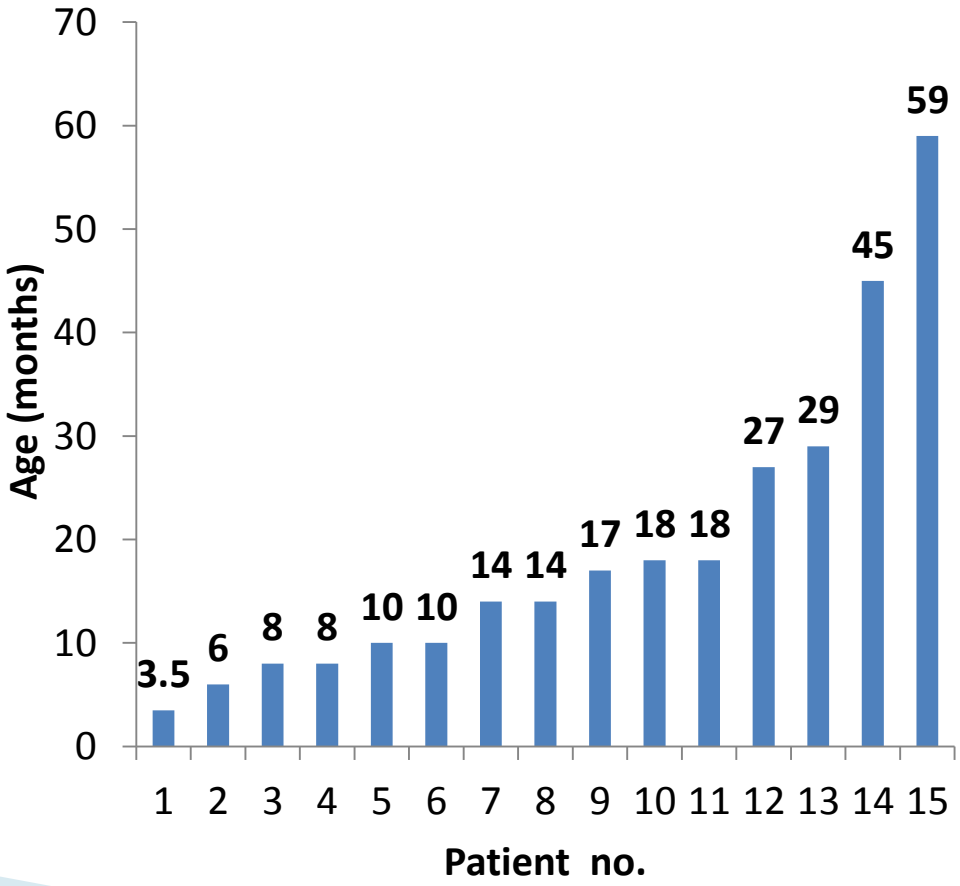


Fig 4. Urban rural distribution of KD at Parami General Hospital

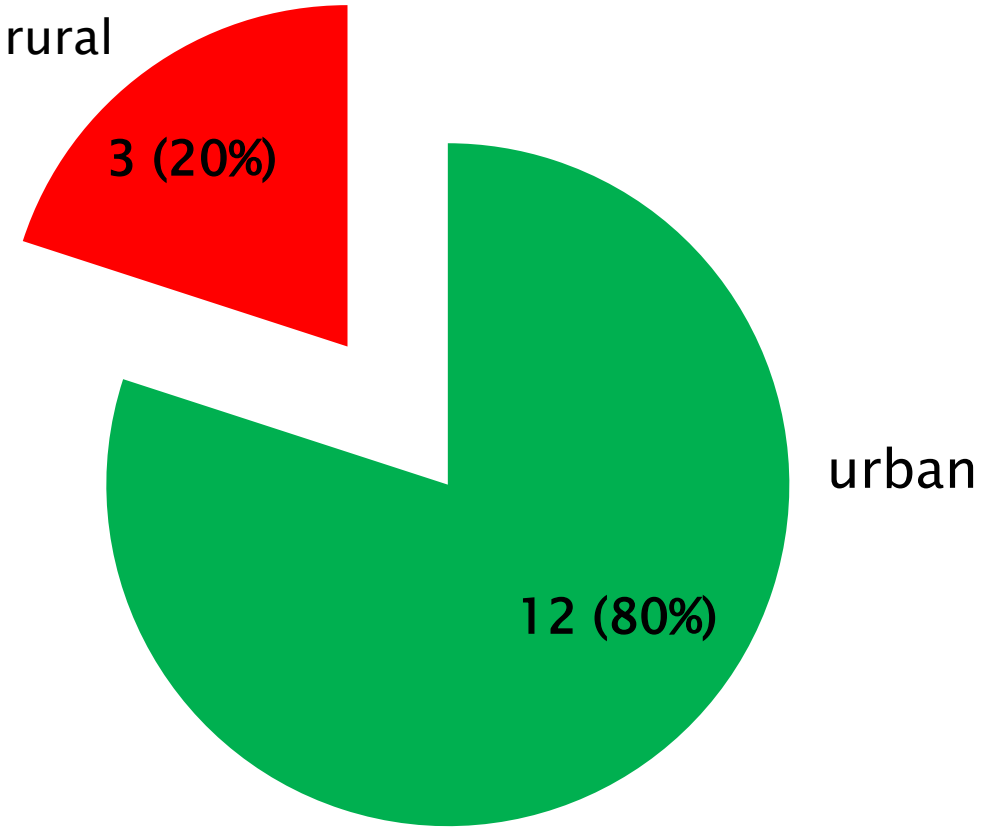
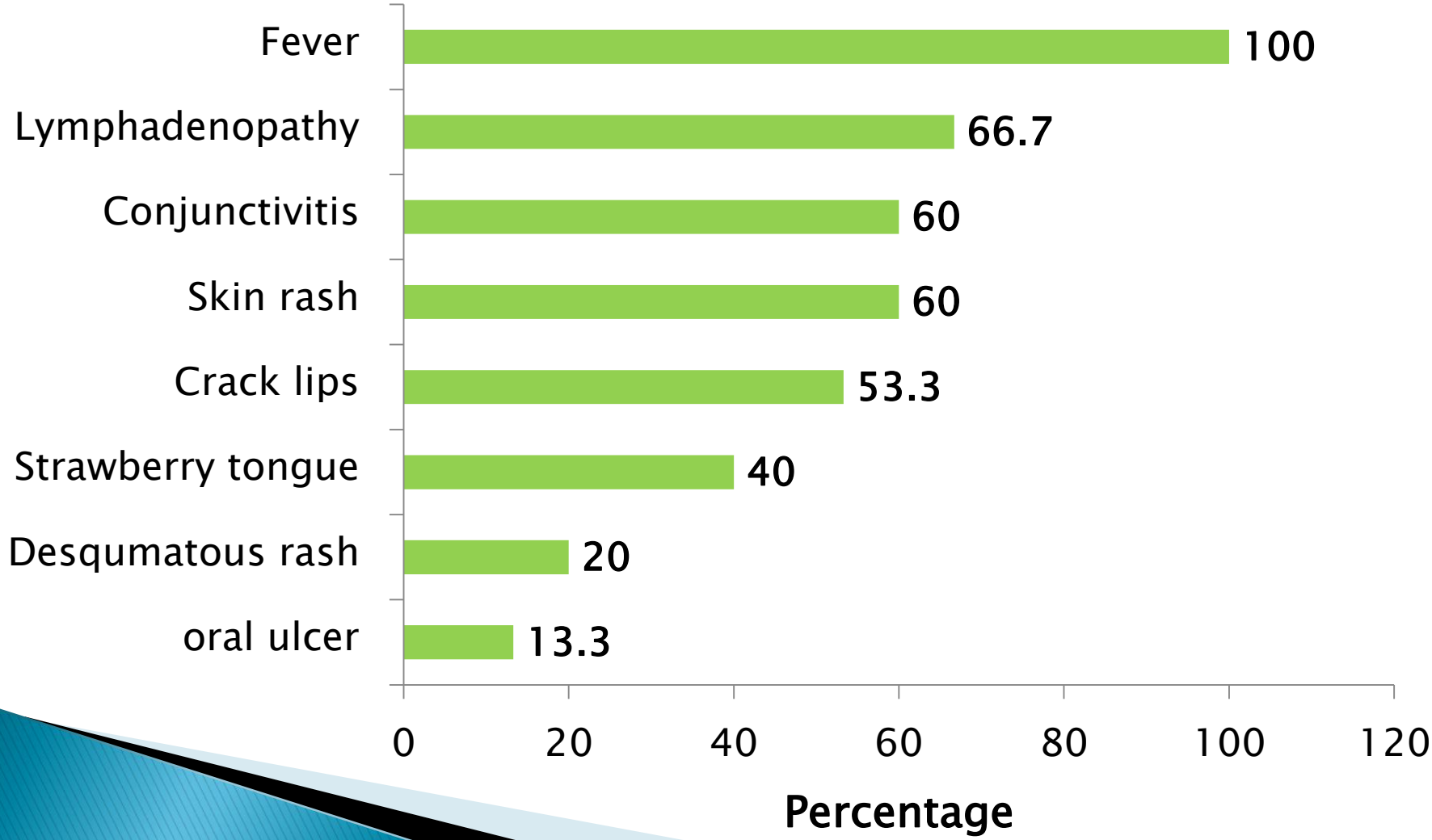
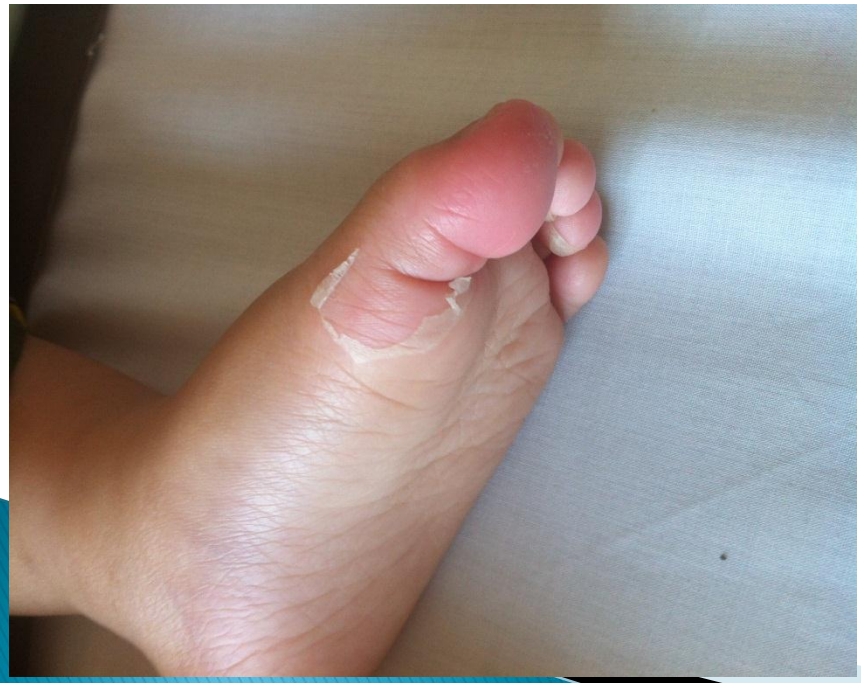


Fig 5 – Distribution of presenting symptoms in order of frequency



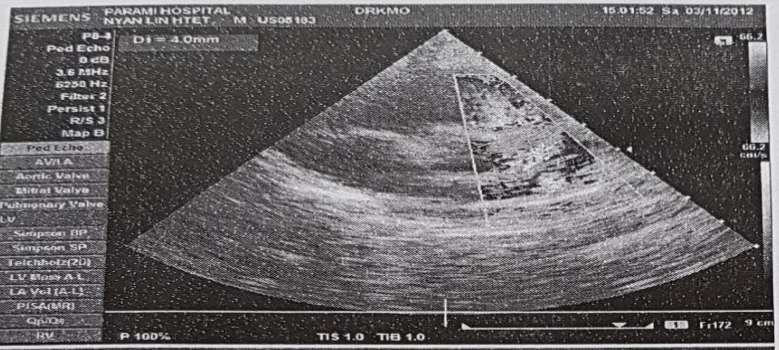


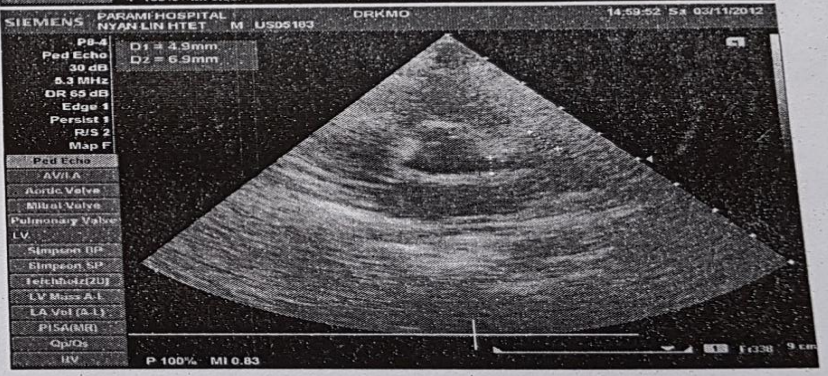
PARAMI HOSPITAL

Ped Echo Report

Patient ID : US05183
Patient Name : NYAN LIN HTET
Age :
Sex : M

Study Date : 03/11/2012
Referring MD :
Performing MD : DRKMO
Sonographer :





Summary
LA AND LV -, RA AND RV- NORMAL
NO SHUNTS
RT CORONARY ARTERY- 3.9MM
LT CORONARY ARTERY 4.9MM, ANEURYSM- 6.9MM

Recommendations
kAWASAKI'S DISEASE

Signature
DR. U KHIN MAUNG OO

Date: 03/11/2012

Fig 6 – Distribution of WBC in KD patients

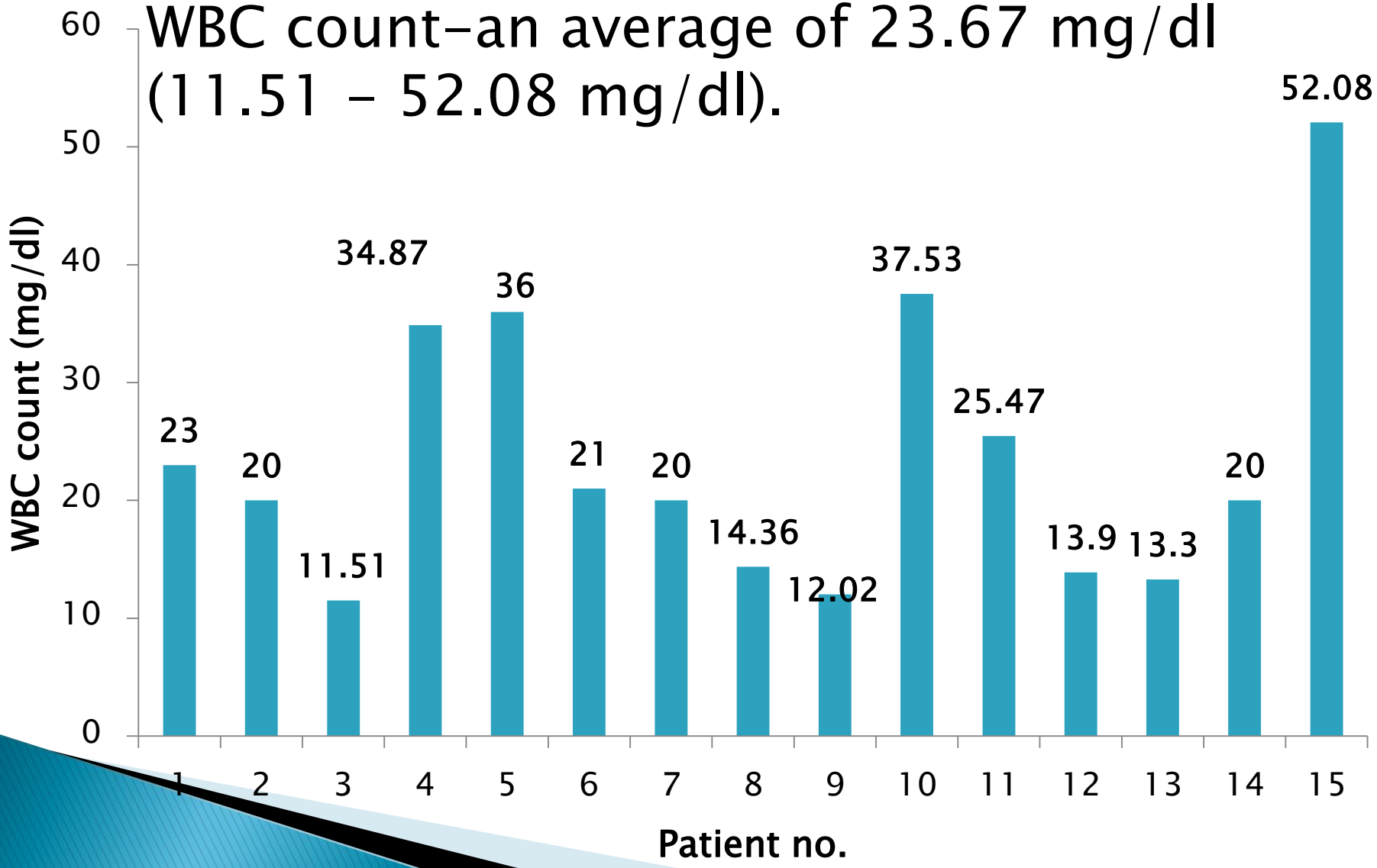


Fig 7. Frequency distribution of HGB percentage

HGB is reduced in most of the cases with average of 9.7 g % (6.5 – 11.1 g %).

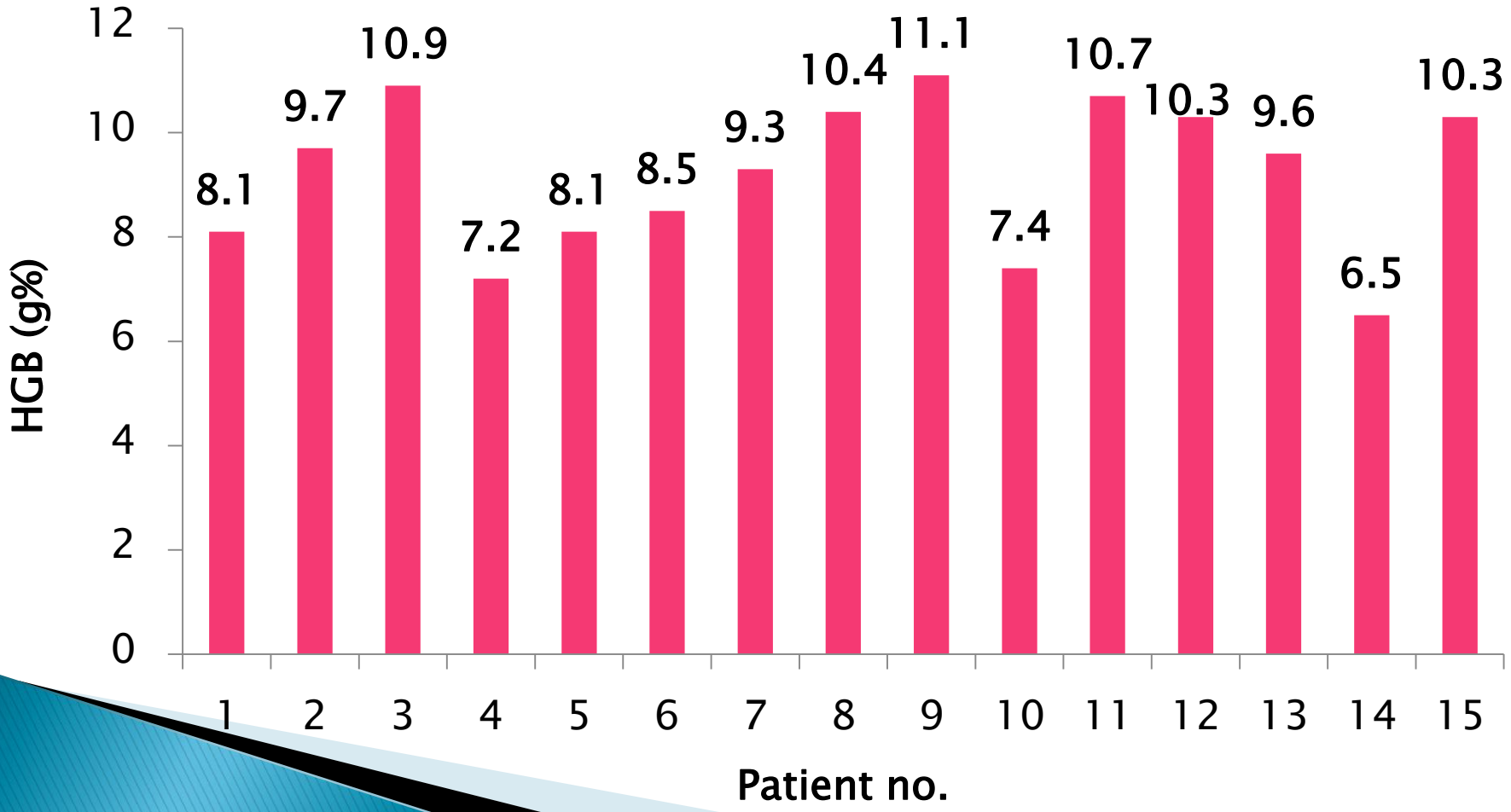


Fig 8. Frequency distribution of platelet counts in children diagnosed with KD

PLT count – an average of 572.8 mg / dl (174 – 847 mg / dl)

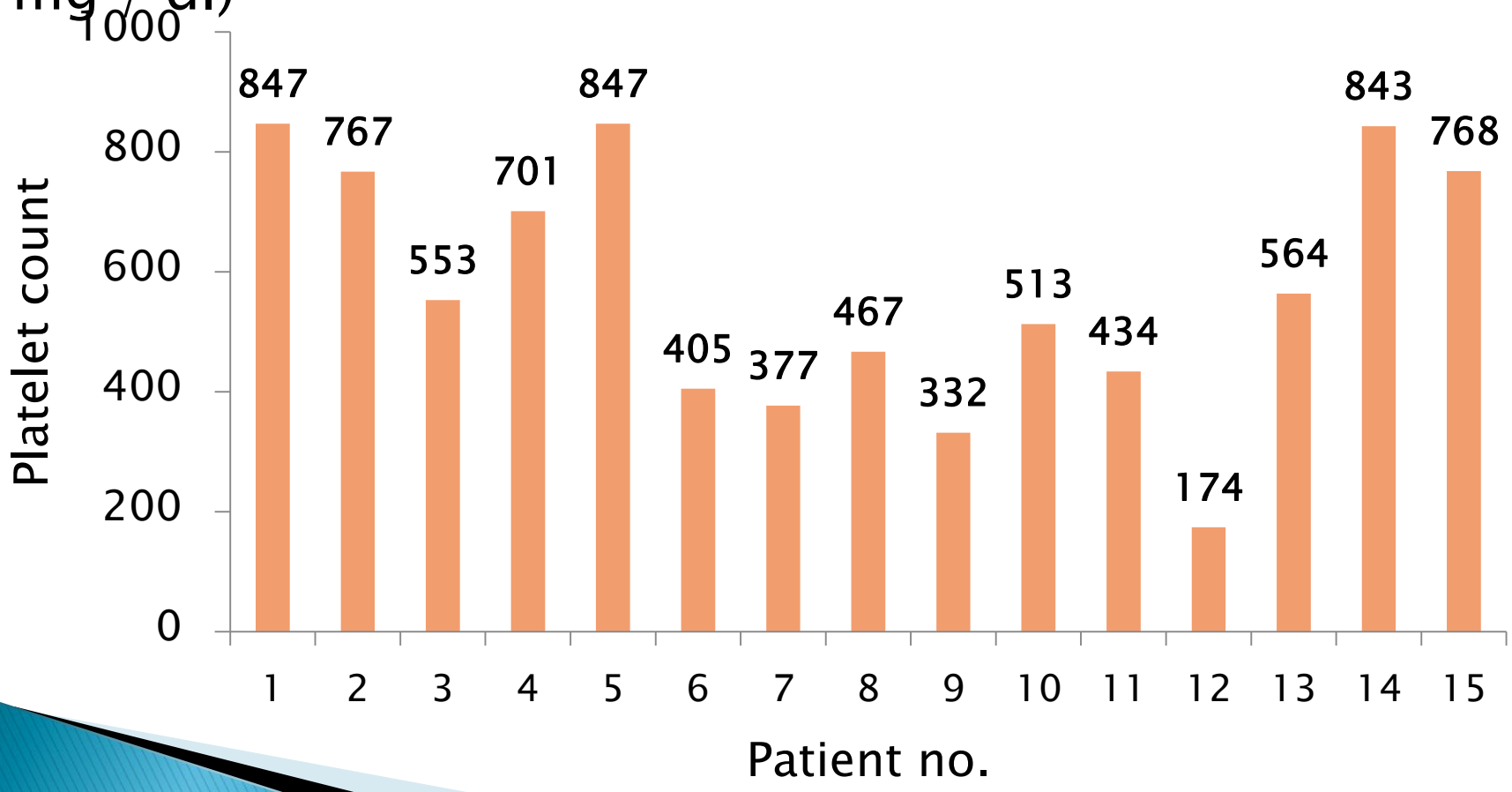
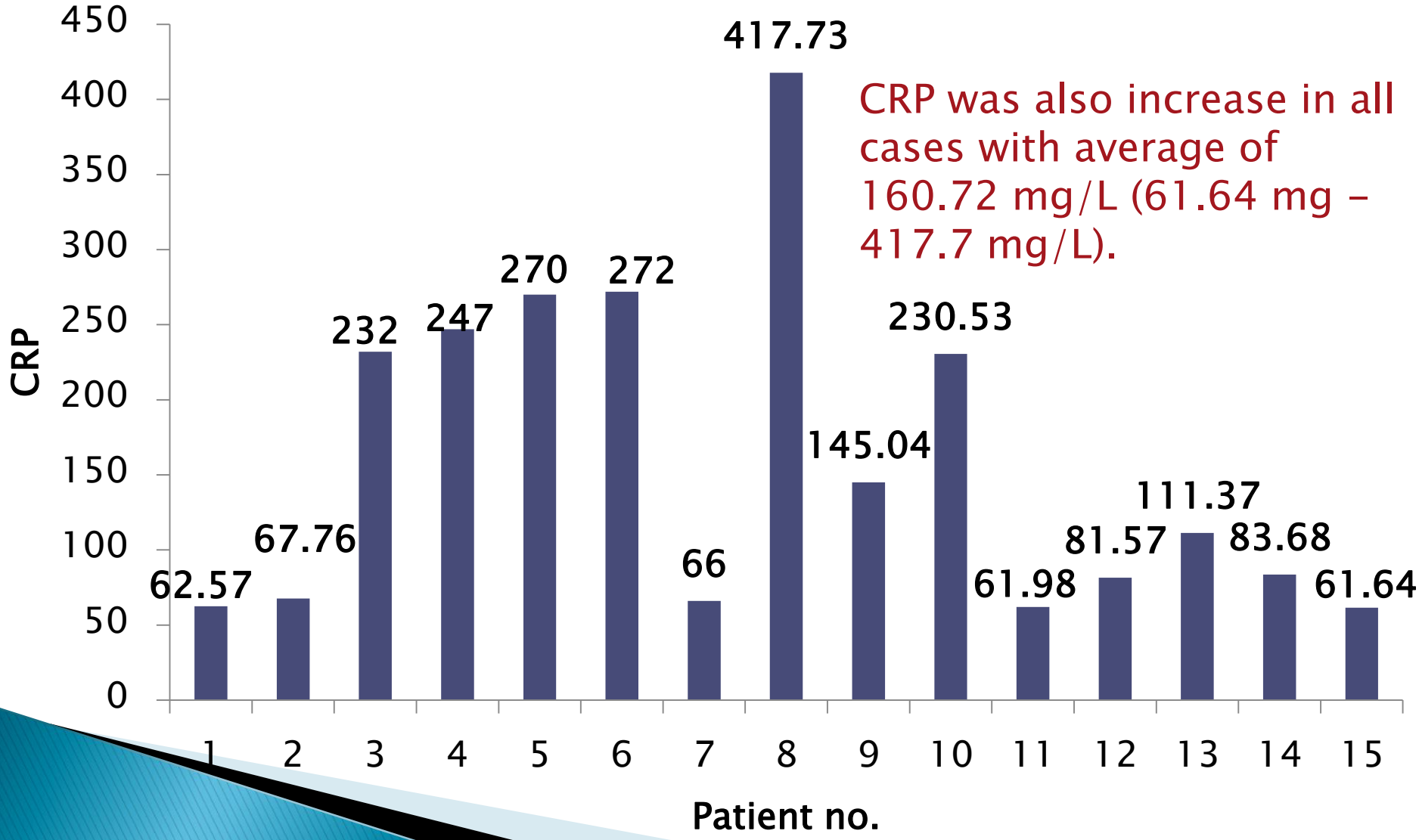


Fig 9. Frequency distribution of CRP in patients with KD



CRP was also increase in all cases with average of 160.72 mg/L (61.64 mg – 417.7 mg/L).

- We did the Echo in all children

- Echo findings showed

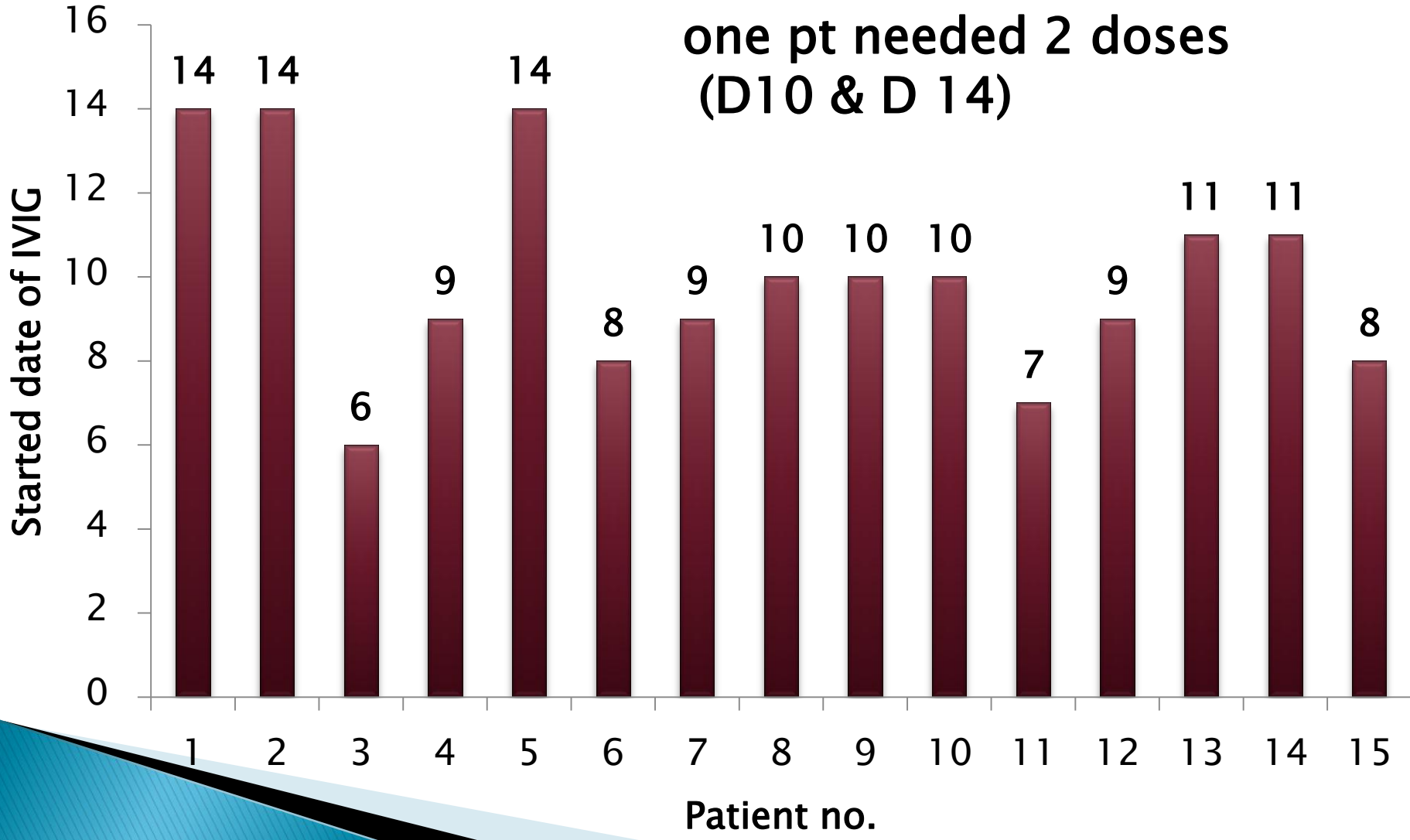
  4 (26.7%)-minimal pericardial effusion

  1 (6.6%) patient - Right Coronary Artery Dilatation

  1 (6.6%) diagnosed with giant aneurysm

  9 (60%) - relatively normal finding

Fig 10. Frequency distribution of started date of immunoglobulin infusion in patients with KD



On Fol: up

All children were recovered from their dis: without residual damage of CA.

1 pt with giant CA aneurym needed aspirin for 3 yrs and now he is also normal CA.

Discussion

- Many studies in the United States stated that 75-80% of KD patients were younger than 5 years, common in 6 months to 5 years with the median age of 1.5 years.

- Supported by our study that median age was 19.1months with the range of 3.5 months to 59 months.

- Peak age distribution in Japan is in infancy (0-11months).
- It was comparable to our study that the peak age group was found in infants.

- Regarding the sex ratio of KD, we are not telly with other study ,

- Our data shows reverse ratio, more female predominance of 1.14:1 (Female: Male) (Reason-small sample size).

Conclusion

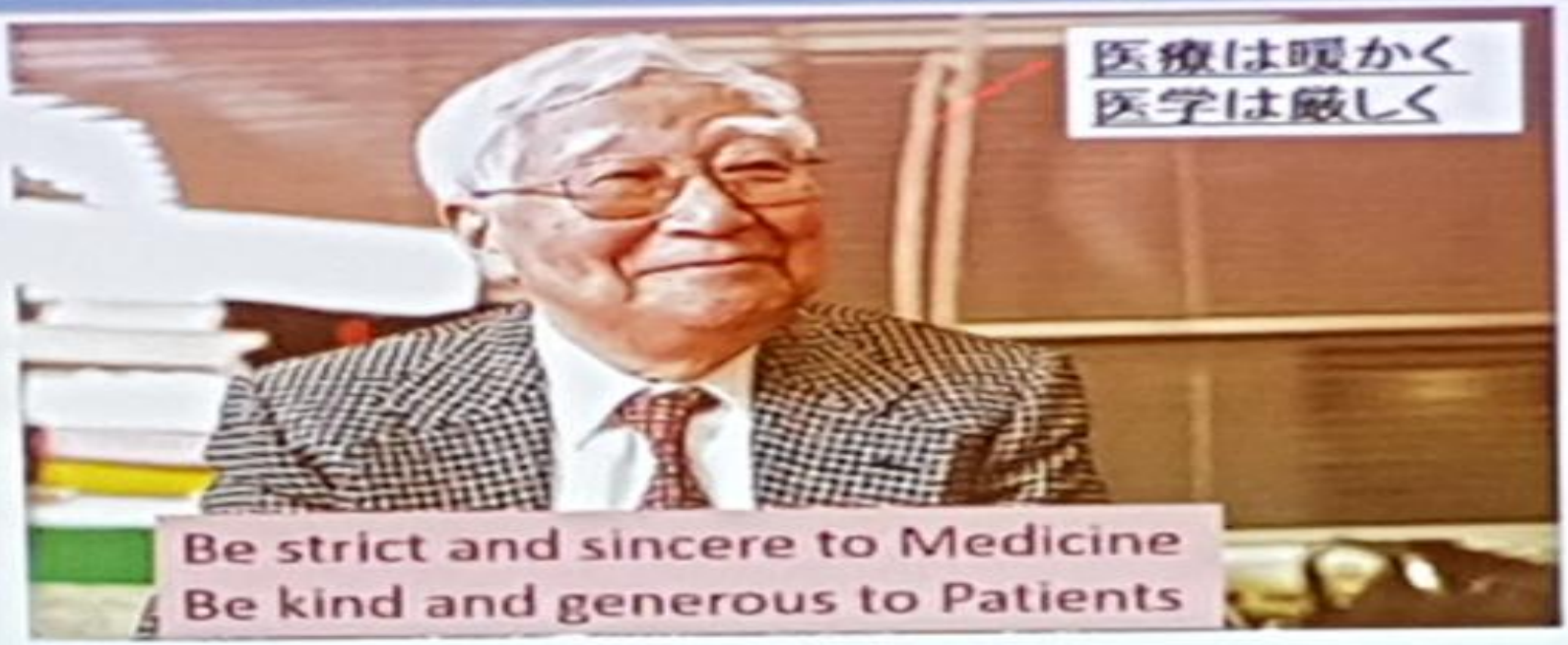
- One should aware of KD in differential diagnosis of a child presented with fever and rash as it can mimic other common diseases like measles, scarlet fever, stevens-johnson Syndrone, juvenile rheumatoid arthritis, bac cervical lymphadenitis ect.

- Satisfactory outcome with early diagnosis and proper timely treatment with IVIG can prevent serious coronary complications.

- Reason for presentation

To raise awareness of KD so that it could be included as a D DX of common febrile conditions in children not responding satisfactorily to conventional therapies.

Dr. Kawasaki always say us.



Reading textbooks and papers is important,
but seeing patient carefully is much more important.

Reference

1. McCrindle BW, Li JS, Minich LL, Colan SD, Atz AM, Takahashi M, Vetter VL, Gersony WM, Mitchell PD, Newburger JW; Pediatric Heart Network I. Coronary artery involvement in children with Kawasaki disease: risk factors from analysis of serial normalized measurements. Circulation. 2007;116:174–179.

2. Terai M, Shulman ST. Prevalence of coronary artery abnormalities in Kawasaki disease is highly dependent on gamma globulin dose but independent of salicylate dose. J Pediatr. 1997;131: 888–893.

3. Kato H, Sugimura T, Akagi T, Sato N, Hashino K, Maeno Y, Kazue T, Eto G, Yamakawa R. Long-term consequences of Kawasaki disease. A 10- to 21-year follow-up study of 594 patients. Circulation. 1996; 94:1379–1385.

4. Anthony Harnden, Masato Takahashi, David Burgner: Clinical review on Kawasaki disease. BMJ | 9 MAY 2009 | VOLUME 338

5. https://www.cdc.gov/kawasaki/cas

6. Holman RC, Belay ED, Christensen KY, Folkema AM, Steiner CA, Schonberger LB. Hospitalizations for Kawasaki syndrome among children in the United States, 1997–2007. Pediatr Infect Dis J. 2010; 29:483–8.

7. Uehara R, Nakamura Y, Yanagawa H:Epidemiology of Kawasaki Disease in Japan: Review article. JMAJ April 2005 48(4);183–193.

8. Ritei Uehara and Ermias D. Belay:Epidemiology of Kawasaki Disease in Asia, Europe,and the United States. J Epidemiol 2012;22(2):79–85

Thank you for your attention!