EXANTHEMATOUS ILLNESS
DEFINITIONS

- Exanthema - eruption of the skin
- Exanthema - eruption of mucosae
- Macule - flat nonpalpable lesion
- Papule - small palpable lesion
- Nodule - large palpable lesion
- Vesicle - small fluid filled lesion
- Bullae - large fluid filled lesions
CHICKEN POX

EPIDEMIOLOGY
• Agent – Varicella Zoster Virus
• Reservoir - Humans
• Transmission – Direct contact, Airborn
• Period of infectivity – 2 days before the onset of rash until all the lesions are crusted
• Secondary attack rate - 90%
• Age - 5-9 years
• Season – Jan - May
CLINICAL PRESENTATION

• Incubation period - 11 to 21 days
• Prodromal phase – Mild fever for 1-2 days
• Eruptive phase -
  - Rash initially on face and trunk
  - Centripetal distribution
-Macule - papule- tear drop vesicles – cloudy & crusting
-Pleomorphism - presence of lesions in different stages of development at the same time
- Intensely pruritic
- Lesions also occur on mucosae  recovery in one week
Pleomorphic rash of chicken pox
COMPLICATIONS

• Secondary bacterial infection (Staphylococcus aureus and Streptococcus)
• Encephalitis (typically post infectious with cerebellar involvement)
• Pneumonia
• Disseminated hemorrhagic chicken pox
• Arthritis, hepatitis, pancreatitis, nephritis
• Varicella during pregnancy:
  1st Trimester - Embryopathy, cutaneous scarring, Limb hypoplasia, chorioretinitis, seizures.
Near Birth - Disseminated Varicella
MANAGEMENT

Diagnosis
• Mainly Clinical
• ELISA - detects Antibodies Viral Isolation
• Persistent fever should rise the suspicion of secondary infection

Treatment
• Antipruritic Agents – topical calamine lotion, oral antihistamines
• Antipyretics- No Asprin
• Acyclovir- severe Cases

Prevention
• Active Immunization- at 15 months of age followed by 2nd dose 3 months later
• Passive Immunization-VZIg
  - Newborns , Seronegative pregnant women
  - Immunocompromised patients
MEASLES

EPIDEMIOLOGY:
• Agent - RNA Virus-Morbilli Genus, Paramyxoviridae Family
• Reservoir - Humans
• Transmission - Droplet Spread
• Period Of Infectivity - 4 Days Before & 5 Days After Onset Of Rash
• Secondary Attack Rate - 90%
• Age - 6 Months To 5 Years
CLINICAL FEATURES

• Incubation Period - 8 To 12 Days
• Prodromal Phase -
  - Fever, cough, coryza, conjunctivitis (3 ‘C’ s)
  - Koplik Spots (2nd day pathognomonic enanthem)
• Eruptive Phase -
  - Rash on 4th day starting on face & spreads downwards
  - Rash - Confluent, Erythematous, Macular. Disappears in 4-5 days with brawny desquamation
Rash of Measles

Erythematous confluent rash that blanches on pressure seen on the face and neck
VARIANTS OF MEASLES

1. Modified Measles -
   • Occurs In Partially Immune Children
   • Milder Illness

2. Atypical Measles -
   • In Recipients Of Killed Vaccine
   • More Severe
   • Hepatosplenomegaly
   • Not Contagious

3. Hemorrhagic Measles -
   • High Fever, Bleeding, convulsions
COMPLICATIONS

• Respiratory tract
  – Otitis media
  – Lymphadenitis, laryngitis, laryngotracheitis
  – Pneumonia, bronchopneumonia
  – Pulmonary tuberculosis

• Nervous system: Encephalitis, Subacute sclerosing panencephalitis

• Digestive system: persistent diarrhea, appendicitis

• Malnutrition: PEM, Xerophthalmia
MANAGEMENT

DIAGNOSIS
• Mainly clinical
• Serology (IgM antibody, realtime PCR)

DIFFERENTIAL DIAGNOSIS
• Rubella - Mild, Discrete Rash
• Infectious Mononucleosis
• Miliaria – Pruritis
• Drug Rash.
• Roseola Infantum - Fever subsides after the rash appears.
TREATMENT

• Symptomatic –
  Antipyretics
  Maintain Hygiene
• Good Nutrition and Hydration
• Vitamin A supplementation
• Hospitalisation in case of complicated measles

PROGNOSIS:
• Self limiting disease
• Measles encephalopathy has 30% mortality
PREVENTION

Measles vaccine - live attenuated vaccine offers good protection. First dose given at 9 months of age and the second dose at 15 months of age.

Post exposure prophylaxis - Gamma globulin or MMR vaccine can be given within 72 hours of exposure.
RUBELLA

EPIDEMIOLOGY
• Agent- RNA Virus Togaviridae
• Natural Host - Human
• Transmission – Air Droplet, Transplacental
• Subclinical - Clinical- 2:1
• Infectivity- 1wk before & 1wk after the onset of rash
**CLINICAL FEATURES**

- Incubation period – 14-21 days
- Low grade fever
- Rash - fine red rash on the face, spreads to cover the whole body within 24 hours
- Rash lasts about 3 days
- Lymphadenopathy and arthralgia may be present
DIAGNOSIS

Rubella antibodies:
- IgG: for past infection or received immunisation
- IgM: for current infection
- Neither antibody: not immunised and no past infection

Discrete maculo papules confluent with large areas of flushing
COMPLICATIONS

• Congenital defects in newborn in 50% cases when infection occurs at first trimester
• Congenital rubella syndrome – cataract, deafness, congenital heart disease, microcephaly, mental retardation.
PREVENTION

- Vaccination with MMR at 9 months and a second dose at 15 months of age
- Pregnant women if not immunized should receive rubella vaccine
EXANTHEM SUBITUM

- Also called Roseola Infantum
- Etiology: Human Herpes Virus 6
- Age Group: 6 months To 3 Years
- Occurs In Spring And Autumn Months
- Incubation Period: 5-15 Days
CLINICAL FEATURES

• Abrupt Onset, high Fever, Coryza, Pharyngitis.

• **Rash appears after abrupt loss of fever.**
  Macular or Maculopapular starting on trunk extending to extremities and face.

• The characteristic enanthem (Nagayama spots) consists of erythematous papules on the mucosa of the soft palate and the base of the uvula.

• Occipital and post auricular lymphadenopathy.

• Edema of eyelids and bulging Anterior Fontanelle can occur.
MANAGEMENT

DIAGNOSIS
• Virus isolation
• IgM antibodies

TREATMENT
• Self limiting illness
• Supportive care
ERYTHEMA INFECTIOSUM

- Etiology - Human Parvovirus b19
- Transmission - Respiratory Secretions
- Age – 5-15 years
- Incubation Period - 4 - 14 Days
- Prodromal Illness - Minimal/Absent
- Characteristic Skin Lesions in 3 Stages
• First Phase
  Erythematous – Slapped Cheeks

• Second Phase
  Itchy Erythematous Or Maculopapular Rash on trunk and extremities
  Palms and soles spared

• Third Phase
  Fades from centre giving a reticular pattern disappears in 2 weeks without desquamation
FIRST PHASE

SECOND PHASE
MANAGEMENT

COMPLICATIONS
• Arthropyathy
• Aplastic crisis rarely

DIAGNOSIS
• IgM antibody or PCR assay

TREATMENT
• Self limiting disease
• Symptomatic
THANK YOU