EPIDEMIOLOGY OF RUBELLA

- ALSO KNOWN AS GERMAN MEASLES OR 3 DAY MEASLES
- DISTRIBUTION
- DETERMINANTS
- PREVENTION

EPIDEMIOLOGY

- Agent Factors
- Host Factors
- Environmental Factors

AGENT FACTORS

- Name: Togavirus
- Source : Contaminated secretions of nose/throat.
- Reservoir: Man
- Host: Case
- Sensitivity: Drying & Disinfectants
- Period of Infectivity: 4 days before, 5 days after appearance of rash.

- Mode of transmission: Droplet
- Incubation Period: 7-21 Days
- Secondary Attack Rate: Common
- Immunity produced: Yes by Infec/ Immu

  All ages are susceptible.

(HOST FACTORS)

- Man is the host
- Any age may be affected
- Both sexes may be involved

Environmental Factors

- Polluted air: Plays a role
- Waste disposal: Unsafe Disposal of Secretions predisposes to acquire the infection
- Poverty: Plays a role
- Illiteracy: Plays a role
- Family system: Overcrowding promotes the process

CLINICAL FEATURES

- Low grade fever
- Lymphadenopathy
- Maculopapular rash

Four stages

1-Prodromal

2-Lymphadenopathy

3-Rash

4-Complications

- Twenty four hours after prodromal syptoms rash appears first on face then on trunk and extremies
- Rashes are discrete, pinkish and maculopapular
- In 25% cases rubela is without rash

CONGENITAL RUBELLA

- Vertical transmission of infection from mother to neonate
- Rubella infection inhibits cell division so there is growth retardation and congenital malformations
- Classical triad is deafness, cardiac malformations and cataract

- Other clinical manifestations are glaucoma, retinopathy, microcephaly with cerebral palsy, IUGR, hepaposplenomegaly, mental retardation and motor retardation
- In 1st trimestar: 85% cong. defects
- In 2nd trimestar: 16% cong. defects
- After 20 weeks: cong. defects uncommon

PREVENTION
Levels

- 1.Health Promotion:
  Improvement of basic Saitation
  Promotion of personal hygiene.
- 2.Specific Protection:
  Rubella Vaccine
  MMR
- 3.Early Diagnosis & Prompt Treatment
  History
  Physical/ clinical Examination
  Lab;
  Viral Culture
- 4.Disability Limitation:
- 5.Rehabilitation:

PREVENTION
Health Promotion

- HEALTH EDUCATION: cost effective
- ENVIRONMENTAL SANITATION: Proper disposal of secretion, Improving of housing
- NUTRITION: NA
- GENETIC COUNSELING: NA

PREVENTION
Specific Protection

- Personal Hygiene: Hand washing before and after eating, after toilet, after touching patient.
- Immunoprophylaxis:

Rubella Vaccine

MMR

Chemoprophylaxis: NA

- Specific Nutrients: NA
- Protective Equipments: Wearing of mask
- Environmental Protection: Proper disposal of secretion, Improving of housing

PREVENTION

Early Diagnosis & Prompt Treatment

- History
- Clinical Picture
- Lab.Diagnosis:

  Culture
- Chemotherapy: Zovirax
- Immunotherapy: IG

Disease: rubella
2. Name of vaccine: MMR
3. Nature of vaccine: live attenuated
4. Age: All ages
5. No of Doses: single
6. Quantity of dose
9-12 months : 0.5
Adult. 0.5cc
7. Schedule :
8. Route of administration:
Intramuscular,subcutaneous.
9. Limitation of use: one hour
10. Type of immunity: Humeral immunity.

Start of Immunity: 6-8 W
Duration of Immunity: >10 Y
Efficacy : Upto 80%
Storage : +2-+8 C
Side Effects: Abscess,Fever,Pain
Contraindications: Pregnancy,Immunocompromised/immunosuppressed,Eczema,Dermatitis
Sensitivity: Heat,Light
Presentation: freezed dried form
Expiry Warning Date of Expiry/VVM
Correlation with other vaccines Yes
Available outlets in Public/Private sector Pasteur Meriux,health

PREVENTION
Disability Limitation

- Complications: NA
- Rectification NA
- Psychotherapy NA
- Physiotherapy NA

PREVENTION
Rehabilitation

- Psychotherapy
- Physiotherapy
- Work therapy
- Job placement

RUBELLA AND PREGNANCY

- Women who are planning to get pragnant should consult their doctor to make sure they are vaccinated before they get pregnant
- Because MMR is live attentuated vaccine, pregnant women who are not vaccinated should wait to get MMR vaccine until after they have given birth

- Adult women of child bearing age should avoid getting pregnant for at least 4 weeks after receiving MMR vaccination
- Pregnant women should not receive MMR vaccine
- If a women gets Rubella or is exposed to Rubella while pregnant,consultation must be seeked from the doctor

- A single dose of rubella vaccine gives 95% long lasting immunity

WHO RECOMMENDATIONS

- By the end of 2015,all WHO regions must achieve measles, rubella and CRS elimination goals
- By the year 2015,regions of America became first in the world to be declared free of endemic transmission of rubella

  By the end of 2020,achieve measles and rubella elimination in at least 5 WHO regions

- Based on Global Vaccine Action Plan(GAVP), assessment report by WHO Strategic Advisory Group of Experts(SAGE) on immunization,rubella control is lagging with 42 countries that still have not introduced the rubella vaccine in routine EPI program.
- Two WHO regions,AFRO and EMRO have not yet rubella elimination or control targets

- SAGE recommends inclusion of rubella vaccine into routine EPI program by all countries