

# THE GREAT POX - SYPHILIS PLAGUES OF THE NEW WORLD - SMALLPOX & MEASLES

## I. SYPHILIS

- A. INTRODUCED INTO EUROPE AROUND 1500
  - 1. CALLED THE "GREAT POX"
  - 2. BECAME EPIDEMIC QUICKLY - A "SOCIAL DISEASE"  
"SINS OF THE FATHER.."
  - 3. PRIMARILY SEXUALLY TRANSMITTED
- B. THE AGENT - A SPIROCHETE, *TREPONEMA PALLIDUM*
  - 1. SHEATH & AXIAL FILAMENTS..SHEATH HAS FEW ANTIGENS
  - 2. ESCAPES IMMUNE SURVEILLANCE  
STIMULATES ANTIBODY PRODUCTION TO SELF
  - 3. SERIOUS STAGE 3 SYMPTOMS
- C. PATHOLOGY IS COMPLEX
  - 1. PRIMARY-SECONDARY-TERTIARY FORMS
  - 2. REAGIN-DIRECTED Ab
  - 3. LATE STAGES DUE TO IMMUNE RESPONSE

## II. SHORT HISTORY OF SMALLPOX - VACCINATION

- A. PRESERVED PHARAOHS SHOW EVIDENCE OF SMALLPOX  
(RAMSES V, 1160 BC)
- B. DESCRIBED IN CHINA ABOUT 400AD, VARIOLATION BY  
THE 10<sup>TH</sup> CENTURY. POPULAR BY 14<sup>TH</sup> CENTURY AMONG  
THE WEALTHY - INHALED DRIED SCABS
- C. INTRODUCED INTO EUROPE BEFORE 700 AD
  - 1. ENDEMIC IN EUROPE BY 1100 AD
  - 2. VARIOLATION INTRODUCED BY MARY MONTAGUE IN  
1720
  - 3. VACCINATION & JENNER - 1796
- D. DEVASTATING TO NEW WORLD INHABITANTS
  - 1. TAINOS/COLUMBUS AZTECS/CORTEZ  
INCAS/PIZZARO
  - 2. SIR JEFFREY AMHERST & NATIVE AMERICANS
- E. VACCINATION DRAMATICALLY REDUCES INCIDENCE
- F. LAST CASE IN USA IN 1947
- G. WHO AND THE ERADICATION PROGRAM - '68-'77

## III. THE POXVIRUSES AND SMALLPOX

- A. COMPLEX VIRUSES - LARGEST OF VIRUSES
- B. REPLICATE LIKE MINI-NUCLEUS
- C. VARIOLA MAJOR AND MINOR  
MANY RELATED VIRUSES  
MANY HOSTS (RECENT OUTBREAK OF MONKEYPOX)
- D. CAUSES HIGH FEVER FOLLOWED BY:  
POX  
30% MORTALITY  
RECOVERY WITH BLINDNESS, SCARING  
MOST DREADED OF ALL DISEASES

## IV. MEASLES - THE SECOND PLAGUE OF THE NEW WORLD

- A. PROBABLY IN EUROPE SINCE ROMAN TIMES

- B. ENDEMIC IN EUROPE THRU THE MIDDLE AGES
  - C. INTRODUCED INTO AMERICAS BY EARLY ENGLISH AND SPANISH COLONISTS
    - 1. CAUSED SEVERE EPIDEMICS
    - 2. HIGH MORTALITY WITH FEVER, BRONCOPNEUMONIA & ENCEPHALITIS
  - D. PROBLEM IN THE USA UNTIL VACCINE - 1963  
MMR IN 1990.
  - E. IN AFRICA IT KILLS MORE CHILDREN THAN AIDS & TB
- V. THE DISEASE AND MEASLES VIRUS
- A. REVIEW OF DISEASE
  - B. DEATHS DUE TO DEHYDRATION, BRONCOPNEUMONIA & ENCEPHALITIS
  - C. LATE SEQUEL IS SSPE
  - D. THE VIRUS
    - 1. A PARAMYXOVIRUS (WITH MUMPS AND RSV)
    - 2. A MINUS-STRAND, RNA VIRUS
    - 3. INFECTS BY RESPIRATORY ROUTE