

PLAGUES IN MAN

CONSUMPTION, THE WHITE PLAGUE - TB

TUBERCULOSIS: "The captain of all the men of death"

- A. AN ANCIENT DISEASE, BUT NOT EPIDEMIC UNTIL HIGH POPULATION DENSITIES
1. CAME TO A PEAK ABOUT 1800
ONE-QUARTER OF ALL DEATHS DUE TO INFECTIOUS DISEASE WERE DUE TO TB
 2. "WHITE PLAGUE" BECAUSE OF ALL THE NORTHERN EUROPEANS THAT WERE AFFLICTED IN THE 19TH CENTURY
MANY NAMES AND MANY SYMPTOMS
 3. THE ROMANTIC AGE AND THE SUFFERING POETS:
MANY STORIES (NOVELS) OF THOSE WITH CONSUMPTION
MANY FAMOUS, HISTORIC FIGURES INFECTED AND ULTIMATELY KILLED BY TB
KEATS, SHELLEY, ELIZABETH BROWNING, PAGANINI, TZAR NICHOLAS, RACHAEL, THE WHOLE BRONTE FAMILY (CHAROLETTE, EMILY, MARIA, ELIZABETH, ANN, BRANWELL) IN AMERICA: THE WHOLE EMERSON FAMILY, THE THOREAUS, INCLUDING HENRY DAVID

THE DEPICTION OF AUTUMN IN LITERATURE CHANGED AT THE END OF THE 18TH CENTURY. FROM ABUNDANCE AND BOUNTY TO MELANCHOLY AND DESPAIR (CONSUMPTION)
 4. ORGANISM ISOLATED BY ROBERT KOCH IN 1882
 5. NOW:
USA - 25,000 NEW CASES, 2000 DEATHS
WORLD- 1/5 OF POPULATION INFECTED (ONE BILLION PEOPLE), 10 MILLION NEW CASES PER YEAR, 3 MILLION DEATHS PER YEAR
- B. NAMES
1. PULMONARY TB OR TB, "THE WHITE PLAGUE"
 2. CONSUMPTION, "GO INTO A DECLINE", TABES
 3. PHTHISIS
 4. SCROFULA: the "King's evil"
 5. HECTIC FEVER OR GASTRIC FEVER
 6. BRONCHITIS, INFLAMMATION OF THE LUNGS, "LUNGER"
- C. THE AGENT - *MYCOBACTERIUM TUBERCULOSIS*
1. HIGH GC GRAM POSITIVE
 2. ACID-FAST
RELATED TO CORYNEBACTERIUM, NOCARDIA
CONTAIN: MYCOLIC ACIDS
ARABINO-GALACTANS
CORD FACTOR
MYCOLIPIDS, WAXES
 3. SLOW GROWING, PLEOMORPHIC
EARLY CORD-LIKE GROWTH - CORD FACTOR
[ASSOCIATED WITH VIRULENCE]
AFTER WEEKS OF GROWTH PRODUCE SMALL, VERY WRINKLED COLONIES
 4. DIFFICULT TO TREAT - ISONIAZID & RIFAMPIN

D. PATHOGENESIS

1. CAUSES TUBERCLES IN LUNGS
 - a. HYPERSENSITIVITY REACTION OF MACROPHAGE AND T-LYMPHOCYTES
 - b. MAY BE WALLED OFF - GHON COMPLEX
 - c. LATER REACTIVATION
2. MILIARY TB
3. ALL ORGANS CAN BE INFECTED
4. SKIN - NECROTIC LESIONS OF NECK - SCROFULA FROM UNDERLYING TISSUES
5. ALL ORGANS, CONNECTIVE TISSUE, BONE
6. SLOW-MOVING MENINGITIS

E. TREATMENT

1. HISTORY OF ISOLATION - TB HOSPITALS AND WARDS TB COLONIES
2. SPECIAL ANTIBIOTICS - ISONIAZID, ETHAMBUTOL OTHERS
LONG TERM TREATMENT

F. PREVENTION

1. QUARANTINE AND ISOLATION
2. IMMUNIZATION
THE BCG STRAIN OF BOVINE TUBERCULOSIS SINCE ABOUT 1920
VACCINES DIFFER WIDELY IN EFFECTIVENESS