

## CANCER CASES

### Topical Index

#### I. GENERALLY, COMPLEXITY AND IGNORANCE OF CANCER

- A. Latency Period
- B. Trigger Mechanism
- C. Effect of Age
  - 1. Cumulative?
  - 2. Change in cell susceptibility?

#### II. SUSPECTED CAUSES OTHER THAN SMOKING

- A. Pulmonary Diseases
  - 1. 1918 Influenza
  - 2. Tuberculosis
  - 3. Silicosis
  - 4. Nonspecific chronic inflammatory lesions of the bronchi
- B. Air Pollution
- C. Occupational Hazards
- D. Radioactivity
- E. Heredity
  - 1. Inherited susceptibility
- F. Endocrine Balance
- G. Virus
- H. Syphilis

Appendix A

### III. STATISTICS

#### A. Deficiencies in Statistical Studies

1. Unreliability of death certificates
2. Interviewers untrained
3. Concerned with only one factor among many
4. History of deaths limited
5. Smoking habits scientifically unascertainable
  - a. Differences according to method of smoking
  - b. Inhalation of no apparent importance

#### B. Statistics Incompatible with Cause-Effect Relationship Between Smoking and Cancer

1. Male-Female ratio
2. Urban-Rural ratio
3. Differences among socio-economic and racial groups
4. Geographical differences

#### C. Increased Incidence

1. More apparent than real for lung cancer
  - a. Better diagnosis
  - b. Aging population
  - c. Lungs common site for metastasis
2. No significant increase for cancer of larynx, trachea or oral cavity
3. Rate of increase in lung cancer inconsistent with rate of increase in smoking
  - a. Most rapid rise in increase took place during 1920's and 1930's

3.

4. Increase in lung cancer relates better to factors other than smoking if latency period of disease considered

- a. Use of automobiles
- b. Air pollution

#### IV. EXPERIMENTAL EVIDENCE

##### A. Wynder - Mouse painting

- 1. No relation to humans
- 2. Painting other animals give negative results

##### B. Auerbach - Precancerous Changes

- 1. Term has no accepted medical meaning
- 2. Cannot distinguish microscopically smokers' from non-smokers' cancer
- 3. Results obtained from small and unrepresentative samples

##### C. Rigdon - Exposure of ducks' tracheas to tobacco residue

##### D. Green - Exposure of transplanted embryonic mouse lung

##### E. Kotin - Inhalation of smoke and polluted air

- 1. Negative results with smoke
- 2. Positive results with Los Angeles smog

#### V. COMPONENTS OF TOBACCO SMOKE

##### A. Benzpyrene

- 1. Insignificance

B. Wide Variations

1. Type
2. Grade
3. Crop
4. Method of smoking
  - a. cigarettes
  - b. pipe
  - c. cigar

C. Effect of Temperature

D. Paper

E. Filters

VI. NON-SMOKERS AND CANCER

A. Incidence of Cancer of Lung and Larynx among Non-Smokers

B. Proof of Other Causes

VII. ROLE OF MEDICAL SPECIALISTS IN LUNG CANCER

A. Pathologist

B. Surgeon

C. Research Worker

D. Clinician

E. Statistician