

## 第45回総会シンポジウム

## I. 結核疫学の理論と実際

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## The 45th Annual Meeting Symposium

I. THEORETICAL ANALYSIS OF EPIDEMIOLOGY  
OF TUBERCULOSIS AND ITS APPLICATION TO  
PRACTICAL TUBERCULOSIS CONTROL\*

Chairman : Tadao SHIMAO

The epidemiological situation of tuberculosis in Japan has been improving markedly in recent years, but is still 15 to 20 years behind developed countries in Europe and North America. The aim of this symposium was to study 1) whether it is possible theoretically to increase the declining trend of tuberculosis in Japan and to approach to the level of developed countries in the near future, and 2) to find out measures to overcome difficulties which might exist in conducting the future tuberculosis control programme.

Dr. Endo (Hoseien Sanatorium, JATA) and Dr. Aoki (Aichi Prefectural Cancer Center) succeeded to make epidemiometric model of tuberculosis in Japan by modifying the model of Mr. Waaler. Various informations on tuberculosis including the results of the tuberculosis prevalence surveys, statistics on registered tuberculosis patients, etc., were used in the model. It was found that the declining trend of tuberculosis patients in the coming 30 years becomes slower, as the number of already infected persons which is the major source of future new patients reduces slowly during this period. To reduce the number of tuberculosis patients faster, it is necessary to find out measures to reduce the incidence rate of tuberculosis from already infected persons, to detect cases earlier and to raise the rate of clinical healing by intensifying the supervision of tuberculosis patients.

Dr. Yanagawa (Institute of Public Health) and Dr. Kato (Kanazawa University) analyzed the past trend of tuberculosis mortality, the incidence rate of newly registered patients and the prevalence of resistered active tuberculosis, and estimated their future trend with special reference to the prefectural difference. Among various factors, the following was found to show close correlation with the prevalence of tuberculosis at present; these were the past

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history of tuberculosis prevalence during pre-chemotherapy era, and the efforts made in the days soon after the introduction of chemotherapy. The tuberculosis mortality, the incidence rate of new cases and the prevalence of active tuberculosis in 1980 are estimated at 5.5, 55 and 392 per 100,000 population, respectively. The difference between the prefectures showing the highest and lowest figures becomes more marked in the future. More intensive efforts are required in conducting the tuberculosis control programme in prefectures which still show high prevalence of tuberculosis.

Dr. Suzuki (Toho Clinic) reported the results of the cooperative research conducted by the Research Committee on Tuberculosis and Labour. Big enterprises in Japan achieved most remarkable results in tuberculosis control through intensive case-finding and treatment programme. Development of tuberculosis control programme among school children and students also contributed to the reduction of tuberculosis patients in the enterprises. Future problem of tuberculosis control among workers is to increase the coverage of tuberculosis control programme to the employees working in smaller enterprises.

Dr. Ohshima (Osaka Branch, JATA) made surveys on tuberculosis in Osaka area, which shows high prevalence figures. The results were compared with those of the whole country, and it was revealed that the prevalence of active tuberculosis was higher and the coverage of control measures such as the mass case-finding programme and BCG vaccination was lower than those of the whole country, and the difference in these indices was most marked in the age groups 25 to 39. Various new trials are conducted to improve the programme; these are symptomatic case-finding in cooperation with general practitioners, mass case-finding in combination with screening for hypertension and cardiac diseases and short term hospitalization.

Dr. Sakanashi (Kumamoto Branch, JATA) reported the results of cooperative research made by the Research Group on Prevention of Tuberculosis in Kyushu Area. Prevalence of tuberculosis is still generally high in Kyushu district. In the areas in which the tuberculosis control programme has been conducted intensively, however, the prevalence has come down lower than the national average. In the areas in which the coverage is insufficient, the situation remained unchanged. Many trials are now being conducted to raise the efficiency of case-finding programme and the early coverage of BCG vaccination, and to strengthen the supervision of detected patients.

The details of above-mentioned reports will appear soon as the original article in the future issue of KEKKAKU.

日本の結核事情は近年急速に改善されてきたが、欧米先進諸国に比べてなお 15~20 年のおくれがみられている。このシンポジウムでは、1) 日本の結核まん延状況を近い将来欧米先進諸国の水準に近づけることが理論的には可能か否か、2) 今後結核対策を進めてゆくうえでの障害とそれを克服する方法、について検討した。

遠藤と青木は Waaler の提唱したモデルに一部修正を加えた疫学モデルを作り、結核実態調査の成績や行政統計資料を用いてパラメーターを決定し、これを電算機にかけて今後の結核患者数の推移を予測した。患者数の減少傾向は今後鈍化してゆく。その原因は今後患者発生の源となる既感染者数の減少が鈍いからである。患者の減

少を早くするためには既感染者からの発病を阻止する方策を発見し、患者をより早く発見し、患者管理を強化することによって治癒率を向上させることが必要である。

柳川と加藤は結核死亡率、罹患率、有病率の過去の推移を府県別に分析し、それに関与する因子について検討し、将来の動向を推定した。現在のまん延状況には、化学療法導入期の対策の普及の程度が強く影響しているが、過去のまん延状況も無視しえないことが分かった。10年後の死亡率は人口 10 万対 5.5、罹患率は 55、有病率は 392 と予想され、都道府県別の格差はますます開いてゆくと推定される。格差を縮めてゆくためにはまん延の高い府県で対策をいつそう強化せねばならない。

鈴木は労働結核研究協議会の研究成績を報告した。大企業では結核管理に目ざましい成果をあげているが、これは検診を励行して早期発見に努め、発見された患者に徹底的に治療を行なったことによるものである。学校における結核管理が普及したことも、患者の減少に寄与している。企業の結核の今後の課題は小零細企業にいかに関管理を徹底してゆくかということにある。

大島は大阪府が独自に行なった結核実態調査の成績を全国調査の成績と対比させながら報告した。大阪府では有病率は全国平均を上回り、検診やBCG接種の普及状況はやや劣っており、これらの差は25~39歳で著明である。有症状者検診、高血圧検診に併用した結核検診、

短期入院など、現状を克服する新しい試みについて、その経験を紹介した。

坂梨は九州結核予防会議の行なった共同研究成績を報告した。九州地区は現在なお結核のまん延が強いが、検診を含めた結核対策が強力に進められている町村ではまん延状況は全国平均より低くなつてきており、対策の普及の悪い地区では結核の減少速度が鈍い。検診、BCG、患者管理のあらゆる面に対策を普及し、精度を上げるための努力が行なわれている。

これら各演者の報告は漸次原著として本誌に掲載される予定である。