
ABSTRACTS

PERBRONCHIAL INFUSION OF CLOTRIMAZOLE (BAY b 5097) IN A CASE OF PULMONARY ASPERGILLOMA

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A case diagnosed as intrapulmonary aspergilloma on the basis of sputum culture, bronchial secretion culture, and chest X rays, was treated with BAY b 5097 orally and by perbronchial infusion. The case became negative for fungus ball for some time. The suspension consisted of 1 mg/ml BAY b 5097 in a mixture in equal volumes of glycerin and physiological saline solution was infused by means of Métras catheter at the segmental bronchus under fluoroscopic television.

The infusion was performed twice within 3 weeks, with a total of 60 mg BAY b 5097. The fungus ball disappeared for some time but seems to have reappeared. Perbronchial infusion of BAY b 5097 could likely be of value, as an adjunct in the chemotherapy of intrapulmonary aspergillomas, if further investigations have established adequate dosage and frequency of administration.

THREE CASES OF VANISHING TUMOR OF THE LUNG.

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We have experienced the cases of so-called "Vanishing Tumor of the Lung". In one case the vanishing tumor appeared in the left side and the cardiac failure of this case was due to Patent Ductus Arteriosus. In the others the tumors appeared in the right side, due to arteriosclerosis and constrictive pericarditis.

By many reports of Japan, interlobar pleural effusions in the left side are very uncommon. Then we offer the following comment to explain the rare frequency. Usually congestive heart failure, especially right-sided cardiac failure, causes exclusively right side hydrothorax, but left-sided cardiac failure rarely causes pleural effusions. If it occurs, rare effusions with left-sided cardiac failure are mainly on the left side and it is small and interlobar. By this mechanism and obliterative pleuritis, the first case may have caused left side vanishing tumor.

THE HIGH SPEED MAGNIFIED ELECTROCARDIOGRAPHY

(especially, about the influence of high cut frequency on p wave)

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The abnormal P wave is important to diagnosis of right atrial hypertrophy or left atrial hypertrophy.

R. H. Wasserburger has found, the T-a wave depression of 0.75 mm or more in standard Lead II is highly suggestive of advance pulmonary emphysema.

But it is difficult to measure precisely the width and the voltage of P wave and T-a wave depression, because the P wave may be of very low voltage and short time in standard electrocardiogram.

We have made new apparatus to obtain high speed magnified electrocardiogram (100 mm/sec. in speed, 16 times in amplification)

Using this apparatus, we have taken electrocardiogram in I II III and aV_F .

Filters in amplifier are used high cut 20Hz, 30Hz, 60Hz, 90Hz, and 180Hz.

Among these filters, in high cut 60Hz and 90Hz, we obtained the most detailed changes of P wave.

UNILATERAL PULMONARY EDEMA FOLLOWING THE
THERAPEUTIC RAPID RE-EXPANSION
OF COLLAPSED LUNG

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The incidence of unilateral pulmonary edema has been reported when the entirely collapsed lung caused by pneumothorax or pleurisy was re-expanded rapidly by means of intrathoracic aspiration technique. Many of them developed to severe clinical condition or even fatal. But only few observations on this incidence have been reported in Japan.

The authors will report in this paper four cases with the unilateral pulmonary edema but none of them developed to severe condition. Of the four, two had pleural effusion and two had pneumothorax.

Case 1; A 47-year-old woman. Case 2; A 60-year-old woman.

Both of them suffered pleurisy (Case 1; left, Case 2; right,) with voluminous effusion for about one month before admission. During thoracentesis and removal of fluid was performed, the patients complained temporal intrathoracic sensation of unrestness and tachycardia. Chest X-ray films on that occasion revealed wide, faint and homogeneous shadow on the middle part of the affected lung, which disappeared several days later without any specific treatment.

Case 3; A 20-year-old man. Case 4; A 57-year-old woman.

Both of them suffered left spontaneous pneumothorax with sudden chest pain and dyspnea on four days before admission. The each chest X-ray film on admission revealed entirely collapsed lung with the mediastinum shifted to right-ward. The intrathoracic pressure was positive. Continuous air aspiration was performed by means of intrathoracic plastic tube connected with suction pump with the negative pressure of 20 cm water. After very short period release of the initial symptoms, the patients complained intrathoracic sensation of heaviness several hours later. The each chest X-ray film on that occasion revealed wide, faint and homogeneous shadow in the middle field of left lung, which disappeared without any treatment within a few days.

From the observations of ours and other investigators, the condition of the symptom seems to be associated with 1) collapse of entire lung for several days, 2) rapid re-expansion of the lung by removal of air or fluid, 3) edema involving the suffered lung. Although the exact mechanism is unknown, it is seemed to be that the pressure gradient between alveolar space and interpleural space induces change of permeability of cell wall of alveoli

or capillary beds, which allows to transude the fluid from capillary into the interstitial space or alveolar space. It is also probable that increase of intracapillary pressure by sudden release of pulmonary circulation or lack of the alveolar surfactant of the collapsed lung may play some role in this mechanism. Considerable relationship between the pulmonary edema appeared here and acute high altitute pulmonary edema is also discussed.

A CASE OF CONGENITAL ESOPHAGO- BRONCHIAL FISTULA

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A case of congenital esophago-bronchial fistula, 45 years old female, that is classified as type III of the criteria by Braimbridge, was presented.

Right lower lobectomy and interruption of the fistula was performed. After the procedure, empyema with bronchial fistula was encountered but treated by decortication of the lung and resuture of the bronchus.

This anomaly is one of rare conditions in adult and so far as we know, only 21 cases have been reported in Japan.

A review of the literatures was also discussed.

SELF-REACTING CELLS IN EXPERIMENTAL THYROIDITIS.
I. A SEARCH FOR PLAQUE FORMING CELLS.

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It was demonstrated that the subcutaneous (or footpads) administration of thyroid extracts with various kinds of adjuvants caused the production of thyroid-specific antibodies in guinea pigs and the development of extensive lymphocytic infiltration in the thyroid gland.

The skin reaction against thyroglobulin of the treated animals was strongly positive 2 weeks after the treatment, while the titre of humoral antibodies remained low.

The titres in anti-thyroglobulin antibodies shown by passive haemagglutination became higher in the more advanced stages (4 weeks). In these cases, the enumeration of plaque forming cells producing anti-thyroglobulin antibodies in the spleen, lymph nodes and thyroid glands were carried out, and no plaque forming cells were shown in these organs.