

MEDICINE

Lungs Dusted with Aluminum Treatment for Dread Silicosis

First Clinical Trials Are Hopeful But At Least A Year Will Be Required for Conclusive Results

HOPEFUL news of the first clinical trials of a new treatment for silicosis, widespread health hazard to miners and workers in certain dusty trades, was brought by Dr. D. Irwin, of the University of Toronto, to the American Public Health Association meeting in Detroit.

For the past six weeks some seven or eight men, maybe more by now, have been having their lungs dusted daily with aluminum powder in the hope of checking further ravages of their lungs by the silica dust they have been breathing while at work. The treatment is being given by Dr. D. Crombie, superintendent of the Queen Alexandria Sanitarium in London, and Dr. J. Blaisdell.

At least a year will be required before the results of the treatment can be determined, but the signs so far are "far from discouraging," Dr. Irwin said.

The men inhale the aluminum dust through a tube held in the mouth, exhaling through the nose. The treatments

start with a two-minute daily inhalation and work up to a thirty-minute inhalation every day. The men are continuing with their work while under treatment.

Tests of lung function, developed by Prof. W. S. McCann of the University of Rochester, were made before the start of treatment and will be made at intervals during the trial year of the treatment. It is hoped that these, as well as the way the men feel, will show any beneficial effects of the treatment.

The aluminum acts to check silicosis by coating the silica particles that are doing the damage in the lungs. This keeps the silica from dissolving and acting chemically to damage the lung. Studies by a number of scientists previously showed that it was not the sharp dust particles that damaged lungs but some chemical reaction between free silica and the lung tissue.

Following this lead, Dr. Irwin and associates first tried the effect of aluminum in reducing the solubility and chemical reactivity of silica. Finding that

aluminum could check both these actions, they tried aluminum dusting the lungs of laboratory animals with silicosis. The results showed that while lung damage was not changed, the potentially dangerous quartz in dust cells can be inactivated to a form in which the lungs can get rid of it. Success with treating the animals led to the trials now going on in the aluminum treatment of human silicosis sufferers.

"If our prognostication is correct, the usual inexorable progress of the disease will be arrested and functional impairment diminished," Dr. Irwin said.

Before treating human patients, one hundred men who had been exposed to aluminum dust in the course of their work for at least twenty-five years were carefully studied. These showed no sign of damage from the aluminum dust.

Preventing silicosis by aluminum dusting the lungs of men working in mines and other dusty trades has not yet been tried. The ideal way to prevent silicosis is to prevent the inhalation of silica dust by proper ventilation and other measures

WINNERS

These posters won the first three prizes in a nation-wide contest conducted by the National Alliance of Art and Industry for the American Society for the Control of Cancer. The \$1,000 first prize for the poster on the left was won by Henry Koerner, 24-year-old Viennese refugee artist now in Brooklyn. Second prize (center) was won by J. T. Ross, Pittsburgh. Herbert R. Loges, New York, won third prize.

