

THE INFECTIONS

The following common serious infections have been quickly overcome in animals and in men by restoring vigorous oxidation through the catalytic activity of Glyoxylide: distemper, pneumonia, severe *Staphylococcus pyogenes aureus* meningitis, acne, common colds, arthritis, sinusitis, Vincent's infection, acute anterior poliomyelitis. Depending upon the chronicity, syphilis, leprosy, and tuberculosis have recovered rapidly or slowly.

The virus infections uniformly respond quickest so that in measles, with 105 degrees fever, with severe eye and ear symptoms the temperature may moderate in one hour, and be normal next day and the patient feel very well in two days.

In severe shingles, relief from the pain and inflammation may only take hours, and the blisters and ulcers soon show healing. In malaria, with regularly recurring attacks, one dose may stop further attacks permanently. A post-operative *staphylococcus meningitis*, that was apparently terminal showed improvement in a few hours but took several weeks to recover, and an acute Neisserian infection in a woman with most virulent cervical smears, was germ free two days after treatment. Rapid recovery depends upon high toxicity and the predominance of polymorphonuclears. The lymphocytic stage demands more time and the macrophagic stage still more time.



Case No. 61.—Mr. E. front view before treatment, showing extensiveness of the lesions—even the palms of the hands, and the nails were affected.



Case No. 61.—Showing front view after treatment.



Mr. C. before treatment.



Mr. C. after treatment.

ACUTE ANTERIOR POLIOMYELITIS

Only two cases will be reported here, one a child of two years, presenting characteristic symptoms prodromally and paralysis of both legs, feet, and thighs for forty-eight hours before treatment of one dose of glyoxylide. Recovery was complete with normal return of muscle control within twenty-four hours. No atrophy followed. The other case was a boy of seventeen. All muscles of torso, legs, thighs, arms, neck, the internal rectus of right eye, the swallowing muscles, the diaphragm, intestines, and urinary bladder were paralyzed. When treated with glyoxylide paralysis of whole right leg was already established for four days, and paralysis of the other muscle groups took place within that time, until respiratory paralysis was just about complete, and cyanosis deep, patient unconscious. Recovery started to show within ten minutes after the first injection, noticed in the straightening of the right eye, slightly better breathing and diminution of the bloated abdomen, and the return of swallowing within a day. He required catheterization for four weeks. Satisfactory restoration of muscle development and control required about two years with reconstruction of right rectus abdominalis muscle and right femoris still going on.

TUBERCULOSIS

Miss A.—Age 16. Advanced tuberculosis of both lungs. Spontaneous pneumothorax, left chest. Heart shifted to the right side. Massive tuberculosis left kidney. Evident tubercular meningitis. Projectile vomiting every few minutes for three weeks, cyanotic.

Fever 105. Pulse very weak and rapid. Bedfast. Treated one dose of Ketenones, July, 1922. Recovery took two years. Whole left lung regenerated. No more pathology traceable. Heart restored to left side. Married has healthy twins who are very resistant to colds. Health is still perfect.

Mr. K. L.—Age 27 years. Single. No family history of tuberculosis.

Always well until in the summer of 1932 when he contracted pleurisy after sitting on cold cement block while perspiring. Recovered and felt well until in May, 1935, when he developed a pleurisy pain in the right side which lasted for several weeks. After an x-ray examination of the chest at that time he was admitted to the Herman Keifer Hospital for tuberculosis. In July, 1936, he was given a crush of the right phrenic nerve at that hospital.

He presented himself here for treatment September 4, 1936. There were no active symptoms except that he had failed to gain in weight. His normal weight was 153 pounds and since his illness began it had remained at 143 pounds. Physical examination of the chest showed adventitious breath sounds in right upper thorax and in the right axilla. There was no change in rhythm and there was no indication of cavity formation.

He received a treatment of Koch's Ketenones on September 9, 1936. September 25 he weighed 149 pounds and there was some improvement in the breath sounds on the right side. November 27 he weighed 151 pounds. His pulse was 88. February 15, 1937 his weight had increased to 156 pounds and it remained the same until he went to work in April.



Mrs. R. (Miss A.) and twins born after her recovery. These children inherit immunity demonstrated in total freedom from colds.

The breath sounds were normal and have remained such. July 19, 1937, after doing manual labor for four months, he weighed 161½ pounds and had no symptoms of tuberculosis.

Mr. J. O.—Age 36 years. Mexican laborer.

Coughed all winter but felt better in summer; had night sweats sometimes but did not feel feverish. No history of hemoptysis. Has been losing weight for several weeks and feels so weak he cannot work.

Physical examination—Kyphotic spine, pallid complexion, deep supraclavicular fossae, slight decrease in resonance in upper left thorax and left apex, no rales heard, no change in rhythm of breath sounds anywhere but appear greatly diminished in volume over entire chest, pulse 86. Normal weight 150 pounds—present weight 130 pounds. (See x-rays.)

Diagnosis—Advanced chronic pulmonary tuberculosis fibrotic type involving both lungs. Contraction of upper left lobe and numerous cavities. Scattered areas of infiltration in both lungs.

Progress—Patient received intramuscular injection of Ketenones January 25, 1937 and was put to bed. Cough rapidly disappeared, appetite improved, and by March 11 he had gained 16½ pounds in weight. Examination on this date showed improved aeration of right lung, no rales, but diminished resonance and breath sounds over upper left lobe. Pulse 86. Patient anxious to go to work.

On April 5 he weighed 152 pounds and was free from symptoms. Pulse 76.

An x-ray taken on this date showed a decided decrease in the areas of density.

April 12 he weighed 155 pounds. Pulse 72.

April 19 completed 12th week from date of treatment. Weight remains 155 pounds.

He is out of bed, able to take long walks without fatigue, and is free from symptoms. Advised to go to work.

May 15, weight 154 pounds. Has been doing light manual labor for nearly a month with no loss of weight and no return of symptoms.

Mr. R. O.—Age 25 years. Occupation: Job-setter. Oct. 1, 1937, reported well and working.

Awakened at 3 a. m. July 24, 1936 with a coughing spell and raised about two ounces of blood. Had a medical examination and was told the x-ray showed tuberculosis of the lungs. He had a moderate rise of temperature in the evening for three days.

Examination of the chest on July 31, showed no change in resonance. There was an increased expiratory sound in the upper right thorax and some subcrepitant rales. (See x-rays.) There was no afternoon fever on this day. His weight on that date was $137\frac{1}{2}$ pounds—normal weight 140 pounds.

At a prior examination made at the Herman Kiefer Hospital he was given a diagnosis of active pulmonary tuberculosis.

Progress—He received treatment on July 31, 1936. August 13 he had gained three pounds in weight and had no afternoon fever during past week. He still had a slight productive cough. Auscultation of chest was negative.

August 20—Cough gone. Walks a mile every day but takes rest hours. Weight 140 pounds.

September 17—Weight 142 pounds. Pulse 70. No rales in chest with expiratory cough.

September 28—Weight $142\frac{1}{2}$. Pulse 94.

October 8—Weight $143\frac{1}{2}$ pounds. Pulse 86. Walks two miles every day.

December 3—Weight 144 pounds. Pulse 99.

December 22—Weight $144\frac{1}{2}$ pounds. Pulse 60.

January 21—Weight 147 pounds. Pulse 100. Ordered to bed for three weeks.

February 18—Pulse 86.

March 18—Weight 152 pounds. Pulse 78. Walks several miles every day.

April 15—Weight 152 pounds. Pulse 88.

May 20—Weight 152 pounds. Pulse 64.

June 1—Weight $149\frac{3}{4}$ pounds (summer clothing). Pulse 88.

July 1—Weight $153\frac{1}{2}$ pounds. Pulse 72. Playing tennis and golf for past month. Goes to dances. X-ray shows marked improvement. Advised to go to work.

October 1, 1937—Weight 161 pounds. Free from symptoms.

Mr. C. M.—Age 20 years. Single. First symptoms observed were those attributed to bronchitis, coughing and raising in early part of 1934. Had been told repeatedly that his tonsils were diseased and August, 1934 the tonsils were taken out. Soon after this operation he began having night sweats, raised blood in sputum, had dizzy spells and occasionally mild headaches. There was a rapid loss of weight at that time and he went from 127 pounds down to 118 pounds. Later with rest in bed his weight went up again to 150 pounds.

Physical examination of chest showed a slightly decreased resonance in an area two inches in diameter in the second and third left interspaces at the mid-clavicular line and in the left paravertebral space

just above the angle of the scapula. There was no change in breath sounds except slightly diminished in this area with faint sibilant rales heard occasionally in this region. His weight was 141 pounds; normal weight before illness was 127 pounds. An x-ray of chest showed an increased density in the right apex, an area of calcification and consolidation in the left hilus region corresponding to upper part of lower lobe.

Treatment with Koch Glyoxylide was given on January 12, 1937 and he was restricted to moderate activity with rest hours.

February 1—Weight 142 pounds. Pulse was 76. No symptoms.

February 8—Weight was 145 pounds. Streaks a little in morning. Can take long walks without fatigue.

April 19—Weight was 154 pounds. Raised sputum streaked with blood during twelfth week. Walks five miles daily without fatigue.

April 26—No cough and sleeps well. Weight was 154 pounds.

September 4—Reports he has been working for past three months without symptoms.

Mr. T. D.—Age 49 years. Married. Patient stated he experienced severe headaches twice a week for many years and had "sinus trouble" since 1918.

Two months ago he began coughing and after an x-ray examination he was told that there was a lot of old scar tissue. His cough persisted and on January 2, 1935, he had a severe hemorrhage. His doctor advised him to have his lung collapsed and to go away for a year.

His present weight (January 31, 1935) was 130 pounds. Normal weight was 135 pounds.

On physical examination of the chest there was an

area of decreased resonance in the upper left thorax and apex. The expiratory breath sound was heard loudly in this area and there were loud rales present. These signs of a large cavity in the upper left lung were confirmed by x-ray.

Treatment was given January 31, 1935.

On February 13, 1935 he complained of chills and fever and a productive cough.

March 6, he reported he had had chills and fever for two days in the previous week. Weight had increased to 139 pounds, four pounds more than at any previous time in his life.

May 11, weight 144 pounds. Had moderate fever in ninth and twelfth weeks since treatment. States he has not had a headache since treatment.

October 23, weight 151 pounds. Had a hemorrhage in last week of July. In the 33rd weeks of his treatment he had a fever of 102 degrees for two days and lost five pounds. Has been doing manual labor for past four months.

June 30—Weight 156 pounds. He has been working steady although he had a sharp fever reaction in the 48th and 60th weeks. Physical examination shows little change from original condition.

On March 25, 1937, although his general condition continued to improve and his weight had increased, while working, to 162 pounds, he was given another treatment because the x-ray showed the cavity to be still persistent. At the present time, September 15, 1937, he is working and has no symptoms of any tubercular activity, nearly three years since his first treatment.

The above cases typify the rapid uninterrupted recovery that follows the administration of Koch's Ket-

enones where there has been no previous sanatorium treatment and ill-advised collapse therapy. In Case No. 5 the recovery was somewhat more prolonged although steadily progressive for two reasons: First, the disease had been of much longer duration and more fibrotic changes had taken place in the diseased lung. Secondly, the environmental conditions were more adverse because of the fact that the patient felt compelled to earn a livelihood for his family.

SYPHILIS

Mr. K.—Age 32. Treated, November, 1923. Syphilis of throat. Resistant to vigorous usual anti-luetic treatment. Throat badly swollen and ulcerated. Voice lost. Skin lesions generalized. Blood Wassermann persistently positive. Condition growing worse over a year. One dose glyoxylide was followed by complete recovery in three months. Blood Wassermann negative thereafter. Remains well.



Gumma of skull B. W. 4 plus, confirmed by biopsy. Appearance before the treatment was instituted. (Courtesy of Prof. Maisin.)



Six months after first of three injections. Complete recovery. B. W. negative negative. (Courtesy of Prof. Maisin.)

ARTHRITIS

Resembling the allergic lesions of lues, tuberculosis, leprosy and malignancy, in both rheumatoid arthritis, and in osteoarthritis advancing hyperplasia followed by necrosis is the rule. The picture is that of an unsuccessful response to infection. The restoration of a vigorous oxidation catalysis even in advanced stages with extensive ankylosis and much pain and necrosis has brought about a recovery to about ninety per cent of normal. The following cases illustrate.

Mrs. T.—Age 74. Rheumatoid arthritis for nearly thirty years, progressive until all joints including the jaw articulations had become firmly ankylosed, and terrifically painful on touch or tension. Most joints were distorted, fusiform in shape, enclosing hypertrophic inflammatory deposits and covered with shiny skin. One dose of glyoxylide was given in December,

1927, pain was soon better and in three months she was able to walk a few steps. In one year recovery had become about ninety per cent of normal and has so remained.

Mr. A.—Age 60. Poker spine with rheumatoid arthritis. Painful hypertrophic and atrophic ankylosis of practically all joints including jaw articulations progressing for the last two years with occasional exacerbations. Tonsils had been badly infected for a long time; pyorrhea, sinusitis, and myocarditis present. Treatment of one dose of glyoxylide given in January, 1937; started a rapid subsidence of pain, with absorption of hypertrophic deposits and restoration of ability to walk and open mouth. During the twelfth and fifteenth week reactions, exquisite tenderness accompanied a healing restoration of joint tissues after which perhaps a ninety per cent return to normal was established with improvement still going on.

TUBERCULAR ARTHRITIS AND OSTEOMYELITIS

Miss S.—Age 20. Tuberculosis of left knee joint for fourteen years. Three operations between ages of six and twelve to relieve acute flare-up of osteomyelitis in lower half of femur shaft. Distortion of bone progressive with increasing ankylosis and deformity. Motion angle ten degrees. The fourth flare-up took place in July, 1934, with swelling and intense pain of the knee joint. Rapidly progressive. Could not walk. Radiographic study revealed 'irregular structure and contour of lower third of shaft of femur' with defective calcification and bone absorption, clouding of articular surfaces narrowing of joint space, extensive proliferation around periosteal border. One dose of

glyoxylide given July 23, 1934 was followed by rapid decrease in the pain and a steady restoration of joint and bone to normal, functionally and structurally, with perfect use of leg and full motion within nine months. General health has become excellent.

ARRESTED DEVELOPMENT

An interesting case of arrested development is that of a boy 14 years of age, Mr. S. He was a characteristic picture of infantilism with the feminine form of small shoulders, large hips, delicate skin and hair and female voice. Neither testicle had descended to the scrotum and he was rather fat for his height of 5 ft. 2 in., weighing 150 pounds. Treatment was given and in two years he grew to 6 ft. $\frac{1}{2}$ in. in stature, broad shoulders, small hips, very muscular with a boy's voice and male hair distribution. The testicles had both entered the scrotum and had developed to normal dimensions. Thus full development of the sex glands was restored through the re-establishment of the normal oxidation catalysis and a normal development and physiology were accomplished.

Mr. D. H.—Age 9. History taken December 30, 1929. Past illnesses measles, whooping cough, chicken pox, and enlarged tonsils that were removed in 1935. Cataracts of both eyes since the age of six. Present illness, vision practically nil after four o'clock in the afternoon, could not see windows. Restless writhing motions. Contraction of left arm. Both eyes completely cataractous. Right eye turned downward. Hemolytic color. These conditions showed no change since six years of age. One dose of glyoxylide was given December 30th, and apparently complete recov-

ery followed. Febrile reaction within three weeks and eyes were completely normal by March 20, 1930. Vision apparently completely restored. Mentally normal also. Arm normal. Writhing motions completely disappeared. He became a normal child, quite intelligent. Subsequent reports indicate a complete recovery.

In this instance as in multiple sclerosis, there is definitely an allergic hyperactivity of some nerve centres expressed in the choreiform movements and hyperreflexia. These states may be interpreted, of course, as cerebellar activities escaping deficient cerebral control. But this interpretation has not been proven, and would require that a restoration of nerve tissue takes place in the recoveries we have observed. It is easier to think of a toxic hyperactivity of the neurones involved, rather than a choking off of control impulses by scar tissue, or a failure of development of cerebral tissue, since in both cases the recovery response is too rapid for scar dissolution or new nerve development.

Functional abolition of eighty years standing, in nerve tissue, may also be corrected by the unsaturated ketones. The instance is a physician of eighty-three years of age when taking the treatment for senile epitheliomata of the face. He had been totally blind in the right eye since three years of age, and was becoming so blind in the left eye that he discontinued practice. He recovered. Nine weeks after the injection he reports that the eyes are both able to see a string at a distance of ten feet, each eye tested separately. The condition was diagnosed choroiditis by each of a large number of eminent ophthalmologists throughout the country, who stated the condition was beyond help.