

rays applied to the lesions and to the oral administration of potassium iodide.

BIBLIOGRAPHY

1. Henrici, A. T.: Molds, Yeasts and Actinomycetes, p. 166. New York: John Wiley & Sons, Inc., 1936.
2. Maurizio, A., and Staub, W.: *Monilia niera* Hurri u. Staub. Weitere Untersuchungen über Schwaefleckigkeit bei Ementhalerkrank. Centralbl. Bakt., 75:375, 1928.
3. Browne, C. A.: Deterioration of Raw Cane Sugar. Jour. Indust. & Eng. Chem., 10:178, 1918.
4. Dodge, C. W.: Medical Mycology. St. Louis: C. V. Mosby Co., 1935.
5. Castellani, A., and Chambers, A. J.: Manual of Tropical Medicine, p. 1084. New York: Wm. Wood & Co., 1919.
6. Weidman, F. D.: *Penicillium Brevicaulis* var. *Hominis* Saccardo, 1877, Brumpt and Langeron, 1910, in an American Case of Ringworm of the Toes. Arch. Dermat. & Syph., 2:703 (Dec.) 1920; Markley, A. J.; Philpott, O. S.; and Weidman, F. D.: Deep Scopuloprioposis of Ulcerating Granuloma Type Confirmed by Culture and Animal Inoculation. Arch. Dermat. & Syph., 33:627 (April) 1936.
7. Wilson, S. J.; Hulse, S.; and Weidman, F. D.: Chromoblastomycosis in Texas. Arch. Dermat. & Syph., 27:107 (Jan.) 1933.

925 First National Bank Building

ASPERGILLOSIS OF BONE*

By FREDERICK W. SHAW, M.D.†
and

HARRY J. WARTHEN, M.D.‡
Richmond, Virginia

Although infections due to *Aspergillus* occur most commonly in the external ear, they also occur, though rarely, in the lungs. A case was reported by Just** in which the organism produced an abscess of the brain with bone destruction. At autopsy, a cavernous growth was found with cavities containing a crumbling, yellowish-green substance, and *Aspergillus fumigatus* was isolated from the pathological material.

In the case herein reported, it is worthy to note the difference in morphology of the mycelium from fresh pus examination from the foci of infection and the *Aspergillus* as it grows in contact with air after several days' incubation on nutrient agar. The segmented filaments of mycelium, when growing in the tissues, somewhat resemble the filaments of the *Actinomyces bovis*, except that the hyphae are broader.

CASE REPORT

A 13-year-old Negro boy was admitted to St. Philip Hospital December 26, 1934, with a swollen left hand

of five months' duration and a swollen back of two months' duration. The family history was essentially negative. Five months previous to his admittance a generalized painful swelling of the left ring finger occurred and, after several days of soaking, a small foreign body which was thought to be a piece of glass was extruded. The wound did not heal and pus drained freely. Two months previous to admission the patient fell and struck upon his back. This resulted in a swollen area in the region of the injury which was painless.

A physical examination revealed an emaciated and anemic individual who was ill-nourished with swollen areas in the hand and back. That on the back was a soft, non-tender fluctuating swelling about 5 cm. in diameter and at the level of the twelfth thoracic vertebra.

The laboratory findings showed: negative urinalysis, except for a trace of albumin; red blood cells, 3,720,000; white cells, 16,300 (84 per cent polymorphonuclear and 16 per cent lymphocytes); hemoglobin, 70 per cent; Wassermann negative; temperature, 99.6° F. rectally; and a pulse rate of 92.

Two days after admittance pure cultures of *Aspergillus fumigatus* were isolated from the pus aspirated from the abscess on the back. The spine was clearly

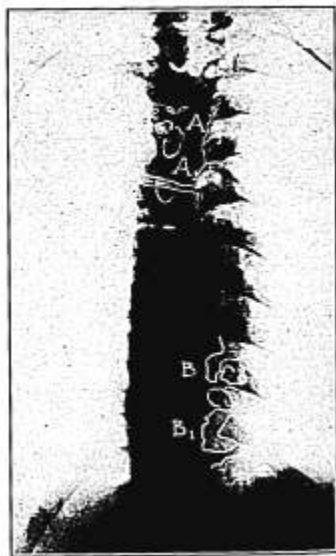


Fig. 1

Retouched roentgenogram (August 20, 1935) showing areas of bone destruction of the fourth and fifth dorsal vertebrae (A-A') and of the tenth and eleventh dorsal vertebrae (B-B') with involvement of the proximal ends of the tenth and eleventh ribs.

*Received for publication May 1, 1936.

†Department of Bacteriology and Parasitology, Medical College of Virginia.

‡Department of Surgery, Medical College of Virginia.

**Just, Emil: Mitt. Grenzgeb., 42:540, 1931.

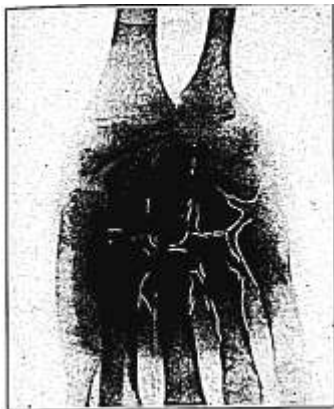


Fig. 2

Retouched roentgenogram (August 20, 1935) showing atrophy and destruction of carpal and metacarpal bones of left hand.

palpated after aspiration and a defect of the vertebral column was noted.

A roentgenogram of the thoracic and lumbar spine showed a large oval area of bone destruction in the twelfth dorsal vertebra without compression of the vertebral body. Cystic areas appeared near the proximal ends on both sides of the tenth and eleventh ribs as well as the right twelfth rib. Destruction also spread to smaller areas in the third and fourth lumbar vertebrae. In the left hand, a roentgenogram showed cystic changes with expansion of the cortex of the middle phalanx of the ring finger and marked bone destruction of the proximal phalanx of the little finger near the distal end. The chest showed thickening of the pleura in both apices and slight mottling of the upper right lung.

With oral treatment of potassium iodide in gradually increasing doses, there was slow but definite improvement in the condition of the hand and back. This treatment was continued at home after the patient was discharged on February 4, 1935.

The patient was readmitted to the hospital on August 17, 1935, with increased swelling and drainage from the hand, but not from the back, which was only slightly swollen. Roentgenograms at this time, as illustrated in Fig. 1, showed a dorsal scoliosis with destructive changes in the fourth, fifth, tenth, eleventh and twelfth thoracic vertebrae; with involvement of the proximal ends of the right tenth and eleventh ribs. Cystic changes in the left transverse processes of the fourth and fifth vertebrae were also found. Fig. 2 illustrates marked deformity of the carpal bones with atrophy and bone destruction of the proximal ends of the metacarpal bones of the four fingers. The distal

epiphysis of the radius was also involved. These changes are compatible with fungus infection.

The patient received a series of x-ray treatments over the spine and left hand by Dr. F. B. Mandeville. Cod liver oil and potassium iodide were administered throughout hospitalization. Elastic traction with a bando splint corrected the deformity of the left hand.

The patient was discharged from the hospital on September 21, 1935, but continued to receive x-ray treatments in the Out-Patient Department.

THE PRESENT STATUS OF CONTACT GLASSES*

By RAY K. DAILY, M.D., F.A.C.S.
Houston, Texas

Experiments with contact glasses have been made for almost one hundred years.¹ It is only within the last few years, however, that they are being advocated for extensive application, and they are being mentioned in medical literature with increasing frequency. They have been described in newspapers and magazines, have aroused vain hopes in many people and patients ask about them. This paper is presented for the purpose of discussing their present status, and not with the object of adding to their already perhaps over-estimated possibilities. But knowledge of these possibilities will be of value in those cases in which their use is definitely indicated and in which we find our armamentarium otherwise exhausted.

A contact glass is worn beneath the lids directly over the anterior portion of the eyeball, in contact with the sclera and separated from the cornea by a thin layer of fluid, to which the lens owes its optical effect. Normal saline solution used for this layer of fluid soon becomes replaced by tears. The optical effect is the elimination of corneal astigmatism and the correction of axial ametropia; corneal astigmatism, particularly disturbing when it is irregular, is corrected through the complete elimination of the cornea as an optical factor; axial ametropia is corrected by the refractive power of the fluid between the cornea and the contact glass. The form of this fluid layer depends on its limiting surfaces, that is on the anterior surface of the cornea and the posterior surface of the contact glass; the anterior corneal surface can be measured, and the posterior surface of the contact glass can be ground to any desired curvature.

*Read in Section on Ophthalmology and Otolaryngology, Southern Medical Association, Twenty-Ninth Annual Meeting, St. Louis, Missouri, November 19-22, 1935.