

~~Private~~ - Sgt., 15th Inf.

Wounded in Action, 8 Sept. 1944, near Besancon, France, by enemy shell fire.

Admitted to 12th. General Hospital, 20 Sept. 1944, from 95th Evac. Hosp., by air.

Died, 18 Oct. 1944, of ventriculitis, as a result of his wounds.

This patient suffered a gutter wound of the left parietal region of the head, with severe comminution of the skull and penetration of the brain with bone fragments, about 1030 hrs., 8 Sept. 1944, near Besancon, France, due to enemy artillery shell fire. He was taken to 95th E.H., where at 2040 hrs., same day he was operated upon, local anesthesia. A decompressive craniotomy was done, and debridement of indriven bone fragments down to the left lateral ventricle was accomplished. About 100 gm. of the left parietal lobe is said to have been removed. There was a 3 cm. opening in the left superior lateral wall of the ventricle. The dura, widely opened, could be only feebly closed. The patient was completely aphasic, and remained completely paralyzed on the right side until his death. The wound began to suppurate on 15 Sept., and by 20 Sept., the day of arrival at the 12th Gen. Hosp., the wound was draining freely a thick green and yellow pus. The patient was fairly alert, completely paralyzed on the right side, and could only make a few sounds at first, though later he surprised us by counting to 20. He indicated that he had a headache, he vomited frequently, and appeared quite ill at times with marked nuchal rigidity and even moderate opisthotonus, though his appetite continued good. He was given penicillin both intramuscularly and intrathecally. X-rays showed retained bone chips within the left parietal lobe, and these were removed at operation on 25 Sept. There was a frank abscess cavity, containing the retained bone, leading off the open tubular passageway from the surface of the brain directly into the left lateral ventricle.

The patient did well for about a week following surgery, but after that his appetite grew worse, he began to lose weight, his periods of opisthotonus became more frequent, he had periods of high fever, and all the signs of a generalized meningitis and ventriculitis. His spinal fluid at one time postoperatively showed a count of 7100 wbc., with cultures of hemolytic strep. and staph. He developed hiccoughs, which promptly stopped with the cessation of penicillin therapy. He died at 1715 hrs., 18 Oct. 1944, after 36 hrs. of complete lack of response.

The salient findings of the autopsy were:

" The head is swathed in bandages, removal of which discloses a recently healed incision over the left tempo-parietal region. There is no evidence of recent infection here, but the woody texture of surrounding scalp is suggestive of former inflammatory change.

There is about 100cc of straw fluid in the right chest; the left pleural space contains a lesser amount, Both lungs are patchily consolidated in their lower portions.

The left lung weighs 700 grams. The lower lobe is edematous and diffusely nodular to palpation. On section a well-developed bronchopneumonia with focal suppuration up to 0.5 cm is evident in the inferior lobe. The upper lobe is congested, rather wet, and shows beginning lobular pneumonic change in the inferior portion. The hilar nodes are enlarged and soft. The stem bronchi of the lower lobe contain a purulent exudate; those of the upper lobe are reddened and coated with mucus. The right lung weighs 800 grams and resembles its mate, in that the lower and middle lobes are the site of changes identical with those noted in the left lower lobe. The upper lobe shows only a moderate pulmonary edema on gross inspection.

Reflection of the scalp is hampered by the woody, fibrous texture of the pericranium and soft tissues of the scalp in the region of the operative wound. There is a roughly circular loss of bony substance about the diameter of a golf ball in the left parietal bone, just anterior to the lambdoidal suture and not involving the temporal bone. The underlying dura here has been sutured. Beneath the dura at this point the brain tissue has been lacerated and is soft. There is no gross evidence of meningeal soilage.

Lung -1- The changes are those of an aspiration pneumonia. There is much destruction of lung parenchyma with multiple masses of bluestaining bacteria and remnants of vegetable and meat fibres in some areas.

Brain - Sections from the sinus tract reveal a pyogenic lining thereof. Many compound granular corpuscles choked with lipid surround the zone of polynuclear infiltration. Evidences of a spreading acute encephalitis are present elsewhere in the sections in the form of inflammatory cell about the Virchow-Robins' spaces of the blood vessels."

#### Clinical Diagnoses:

- (1) Compound comminuted fracture of left parietal bone.
- (2) Brain abscess, left parietal lobe.
- (3) Hypostatic pneumonia.

#### Pathologic Diagnoses:

- (1) Operative defect, left parietal bone, with marginal fractures.
- (2) Sinus tract from left ventricle to surface of left parietal lobe.
- (3) Ventriculitis.
- (4) Pneumonia, hypostatic, of the left lower lobe and right lower and middle lobes of lung.
- (5) Splenitis, toxic.
- (6) Adhesions, ancient, minimal, about posterior surfaces of right upper lung.