A CASE OF MEDIASTINAL TUMOUR ASSOCIATED WITH CEREBRAL HÆMORRHAGE.

By Major W. F. M. LOUGHNAN, M.C.
Royal Army Medical Corps.

The patient, Private P., aged 40, first complained of vomiting on October 12, 1918. After two days he was much improved, and the vomiting had ceased. On October 15, 1918, he again suffered from vomiting, and on the same date he had a convulsion which was followed by a general tonic contraction of the muscles of the arms and legs, with slight tremor of the muscles of the right thigh; complete insensibility, with unequal pupils, jaw rigid and tongue bitten. After the muscular system had relaxed, the unconscious condition continued and became more profound, the breathing became slow and he died at 12.30 a.m., October 16, 1918. No history of previous fits.

Post-mortem Examination.—Body marks: No external evidence of injury. Brain: On surface of upper portion of the left parietal lobe a small subdural hæmorrhage was present. On section just posterior to the fissure of Rolando, a large blood clot with disorganized brain tissue, was found occupying the whole of the left parietal lobe. The clot extended into the left ventricle, and through the foramen of Monro into the right ventricle. No evidence of arteriosclerosis in the vessels of the circle of Willis. No fracture of the skull. Chest: Lungs show small adhesions at both apices. Lung tissue not remarkable except for moderate œdema of both lower lobes; and a small amount of slightly cloudy yellow fluid in left pleural cavity. Heart: Normal in size, no demonstrable valve lesion. Aorta shows no evidence of sclerosis. Tumour: In the anterior mediastinum extending from the region of the thymus gland downwards and well over the right auricle of the heart is a tumour mass which when dissected out, measures 6 inches by 3½ inches by 3 inches. Its greater surface is very firm and solid to touch. The inferior surface is convex in contour, representing the surface adjacent to the right auricle. The anterior surface of the mass has a spongy consistency. On longitudinal section, beginning at the anterior surface, a considerable amount of blood was released from dilated vessels, having the appearance of a hemiangioma; in depth this portion of the tumour measures ¾ inch. The remainder of the tumour is a firm white schirrus tissue, apparently of a dense fibrous nature. It contains no evident blood-vessels. At the upper pole of the tumour is a well-defined glandular structure thought to be the thymus gland; it has a definite capsule and shows no gross evidence of invasion by the tumour mass. Glands: The tracheo-bronchial glands are considerably enlarged, and on section show a soft pigmented surface. Abdomen: No apparent gross abnormalities present of any of the abdominal contents, with the exception of slight general enlargement of the mesenteric glands and the condition of the spleen; the spleen measures 10 by 6 by 3½ inches. It is of normal consistency, and not remarkable in appearance except for size. On section the colour is uniformly deep red with the normal markings obscured. The only other feature of interest in this case was a slight protrusion of the left eyeball, with the pupil somewhat larger than the right.

Histological Examination.—Tumour: The tumour is composed of cells of the lymphoid series, which are usually somewhat larger than fully developed lympho-

cytes. The stroma consists of thin strands of tissue, with fairly numerous lymph sinuses, or capillaries. In some places the strands of tissue have developed into rather thick bands of connective tissue containing few cells. There are very few mitotic figures and no giant cells. No eosinophiles are present. The tumour is about the same in appearance everywhere, the only exception being one large hæmorrhagic area. One slide shows part of a lymph node immediately adjacent to the tumour. In another part of the same section, there is some muscle and fat tissue adjoining the tumour. No thymus tissue was seen. The tumour is a lympho-sarcoma probably arising from a mediastinal lymph node. Possibly arose from some atrophic thymus tissue. Liver: Marked central necrosis. No tumour cells in the capillaries. Kidneys: Glomeruli congested with an exudation of red cells into the glomerular spaces. Some acute degeneration of epithelium. Lungs: Section 1. Broncho-pneumonia and bronchitis. The air cells between the broncho-pneumonia areas show œdema, with many endothelial cells. Section 2. All air cells equally filled with fibrin, and polynuclears and red cells. The alveoli are dilated and the septa often broken. Streptococci are fairly numerous. This appears to be a section from a large rapidly spreading lobular pneumonia, or lobar pneumonia. Section 3. Abscess formation, spleen, hyperplasia, pancreas and adrenals normal.

Pathological Diagnosis.—Lympho-sarcoma (mediastinal); broncho-pneumonia streptococcic; focal necrosis of liver; acute glomerulo-nephritis (slight).

I am indebted to Captain N. A. Beetham, R.A.M.C., for the clinical notes, and to Captain J. L. Stoddard, M.C., U.S.A., for the histological report.

A NOTE ON THE VARIETY AND LATENCY OF ORGANISMS ON MISSILES IN THE TISSUES.

By Major F. C. PYBUS.
Royal Army Medical Corps.
AND
Captain H. J. SLADE.
Royal Army Medical Corps.
AND
P. C. W. LAWS, L.M.&S.A.
First Northern General Hospital, Newcastle-on-Tyne.

The latency of organisms in certain cavities and tissues of the body is well-known. Perhaps the best known of this persistence are the presence of the enteric bacillus in the gall bladder, and the staphylococcus in the bones, months or years after the initial infection has died down. A similar condition has been frequently noted in war wounds, both of the bones and soft tissues, where after varying periods of quiescence a "flare up" occurs and acute symptoms again supervene. This recrudescence of activity has also been noted to occur with foreign bodies lying apparently quiescent in the tissues. It seemed that useful information on this subject might be gained by systematic examination of missiles removed from the tissues. At my suggestion Captain Slade and Dr. Laws co-operated, and missiles apparently sterile, or at least giving no clinical indication of infection were sent to them for examination. The missiles were removed with