

everywhere. Pneumonia—lobar in type, of the entire lung, with the exception of a small portion at the base. Left lung—a few pleural adhesions, lung normal otherwise. Heart—muscle soft and friable, the edges of the mitral orifice slightly thickened but competent, other orifices and valves normal. Aorta normal. The abdominal cavity contained a large quantity of bile-stained fluid. Spleen pushed back out of place by the apparently enlarged left lobe of the liver. Normal on section. Stomach dilated, pylorus free, no cancer nodules anywhere. Duodenum absolutely free, no signs of carcinomatous process, remaining portions of the gut also normal. Pancreas indurated but not carcinomatous. Uterus and ovaries normal. Kidneys somewhat swollen—capsules adherent, more on the right than the left. Markings indistinct.

Liver perhaps slightly enlarged, weight $51\frac{1}{2}$ ozs., studded everywhere with yellowish, hard nodules which do not project above the surface of the organ, are about the size of an almond, have undergone no degenerative changes and merge into normal liver tissue. Anatomical diagnosis—lobar pneumonia, carcinoma of the liver (primary). Chronic interstitial nephritis.

The microscopic examination showed a thickening of the capsule and diffuse infiltration of the liver tissue by small round cells, the cancer cells were imbedded in strands of fibrous tissue, this connective tissue stroma being an accompaniment of the new growth.

The liver cells themselves showed many interesting changes—fatty degeneration, vacuolation, etc., others progressive changes, cells in various stages of mitosis. The cancer cells had invaded liver lobules in certain areas, the outline of the cells in places was very irregular owing to their being crowded aside by the neoplasm. Some liver cells contained large vacuoles, the nuclei also showed changes—a considerable number of giant forms with large masses of chromatin. The nuclei in other places were also undergoing mitosis. The increase in the amount of chromatin was also very conspicuous. The blood vessels showed very little change, some slight increase in fibroblastic tissue (this was inconspicuous)—newly formed fibroblasts and fibroblasts in various stages of mitosis being seen, but chiefly where the cancerous tissue was most in evidence.

An examination of the spleen and other organs failed to reveal any signs of a cancer growth, so by a careful process of exclusion we decided the growth was primary in the liver.

I have to thank Doctor Arthur Hurd, of the Buffalo State Hospital, for the privilege of reporting the case, and I am indebted to Dr. Joseph B. Betts for his kindness in assisting in the preparation of the material.