ARTICLE XVII.

ANEURISM OF AN ARTERIA INTERLOBULARIS RENALIS.

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As far as can be ascertained the following case is unique in medical literature, Surgeon J. S. Billings informing me that there was no report of such a lesion in the Library of the Surgeon-General's Office, U. S. A.; and, aside from its pathological features, it is of interest as a factor for consideration in the diagnosis of, and operative treatment for, abdominal tumors.

A. H. P., male, aged 50, native of New York, occupation barkeeper, was admitted to the St. Louis City Hospital on the evening of May 20, 1879. He was a man of large and fleshy frame; was comatose; skin very pale; Dr. W. H. Hunicke, who made the physical examination, diagnosed pleurisy, enlarged liver, and tumor of the right kidney. No record of illness was obtainable; the patient sank gradually, dying some hours after admission.

I made the autopsy eight hours after death. No external lesion of skin.

On opening the thoracic cavity, the right lung was found adherent to its pleura by numerous recent fibrinous adhesions; the right cavity contained almost 250 c.c. of serous effusion. There were a few pleuritic adhesions of left lung and a small quantity of fluid in its cavity. The heart was firmly contracted, the valves normal.

The abdominal incision allowed a quantity of bloody fluid to escape at the pubic termination. Lifting the omentum, which contained much fat, several blood-clots were exposed between the intestines. These latter were normal. The stomach was congested internally. Removing the stomach and intestines, some 300 c.c. (10 ounces) of free blood were found in the abdominal cavity, and a large clot extended upward under the liver. The right kidney was apparently greatly enlarged, its capsule adhering to the peritoneum and intestines, with other evidences of a circumscribed peritonitis. The capsule was ruptured posteriorly, and from this opening the hemorrhage into the abdominal cavity occurred. Incising the capsule, its enlargement was found to be the consequence of a black, easily disintegrated, hemorrhagic clot, within which was the kidney. The clot was equivalent to 900 c.c. (30 ounces). The kidney was slightly eroded on its surface, and in the external border was a small spherical cavity, about 1 mm. (one twenty-fifth of an inch) in diameter. The tubuli were pressed away, not destroyed, and there was a well-organized fibrinous clot. This was the *fons et origo* of the hemorrhage; and as it contained the only well-formed fibrin that existed in the exudate, and from its shape,

I considered it an aneurism of an interlobular artery. The left kidney was imbedded in a mass of fat; it was slightly enlarged, of pale color, and was evidently the seat of a chronic nephritis. The liver was enlarged, of a light brown color, covered with small nodulations, cirrhotic. The spleen and pancreas were normal.

The deposit of subcutaneous fat, the congestion of the stomach, cirrhosis of the liver, nephritis, and occupation of the patient, point to alcohol as the predisposing cause of disease.

Associated with the first pathological lesions in this kidney, due to the abuse of alcohol, was, probably, a dilatation of this interlobular artery. Had this ruptured, either the blood would have been absorbed by the tubuli, or a small localized hemorrhagic infarct would have resulted, which would have been partially absorbed, partially degenerated, resulting in one of those small yellow spots occasionally found in a kidney. Instead, the increased arterial pressure concomitant with the disease, plus the additional pressure in this special artery at its point of localized dilatation, resulted in an aneurismal condition. Having involved the cortex of the kidney, it ruptured, with the capsule as part of its wall. A dissecting aneurism now commenced slowly filling the capsule, separating it from the kidney, exciting the localized adhesions, and eventuating in rupture and death.

Although from the beginning the cause of the trouble would have been obscure, still, had an operation been performed early enough for renal tumor, the death of the patient from hemorrhage would have been prevented.

The only case resembling this is one reported by Dr. W. H. Dickinson,¹ of congestive nephritis resulting from exposure, in which, at the autopsy, each kidney was found "imbedded in a mass of coagulated blood which lay *outside their capsules* in the surrounding cellular tissue. This hemorrhage was caused by a *rupture* of the capsule from congestive swelling of each kidney." [Italics mine.] The rupture in each gland was at the inferior portion.

Surgical interference in such a case would have been unavailing. The indications in my case would have been the gradual but constant increase in size in the tumor, with the symptoms of internal hemorrhage.

¹ Treatise on Albuminuria, Wm. Wood & Co., 1883, p. 59 *et seq.*