

membrane of the duodenum, etc. In many cases the mode of extension is assisted by the newly-formed adhesions. The lymphatic vessels and veins form another source of propagation of this malady. By way of the former the disease extends to the lymphatic glands in the fissure of the organs to the celiac glands or to the anterior mediastinum or to the thoracic duct, and may finally invade the deep cervical glands.

As to the etiology of this affection, very little is known. Age probably heads the list, cancers belonging pre-eminently to the latter decades of life, coming on during the age of physiologic decline. Sex in all probability exerts little or no influence as a predisposing element. In males, according to the majority of writers, they seem to predominate. Some consider them more frequent in females, owing to the fact that gall-stones are much more frequent in those of this sex, and to the importance which they play as a causative factor in production of malignant growths. (Stengel.) Trauma, nervous influences, heredity, etc., can only act as secondary factors.

As to the clinical history of cancer of the liver, this varies greatly, because the local symptoms, which in themselves are diagnostic, are at one time prominently developed from the onset, but at another remain either undefined or latent. Cases are met with, although they are few, where all signs of hepatic disease are wanting, where complaints of an undescribable or undefined character, as indigestion, constipation, etc., together with disordered innervation, are at first the sole symptoms, and where the increasing cachexia, ultimately terminating in death, is the only symptom of an important lesion.

In conclusion I will state that this case is interesting to the profession for one of three reasons: 1. Because it was a disease undoubtedly primary to the liver; we were not able to find the smallest macroscopic nodule that would be suggestive of a primary or malignant focus elsewhere. 2. Because all symptoms diagnostic of malignancy were entirely absent, especially the ever-present cachexia and jaundice, showing how utterly impossible it is in many of the cases to make a correct ante-mortem diagnosis. 3. Because the disease extended over a period of about two years, the average duration of these affections lasting from six months to a year.

1303 North Garrison Street.

VENOCAVERNOUS ANGIOMA.*

BY ANDREW L. FULTON, M.D.

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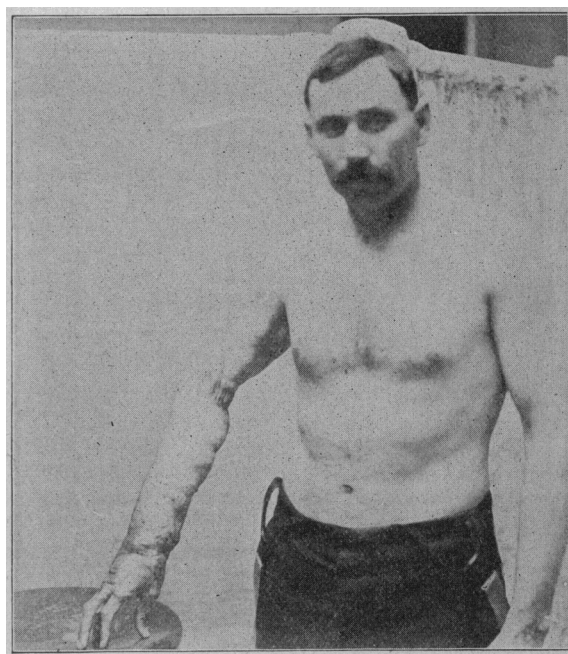
KANSAS CITY, MO.

The following extraordinary case I shall call *venocavernous angioma*, for want of a better name and for descriptive purposes. The patient was first seen by me about March 1, and continued under my observation until the operation was performed, the data being as follows:

Mr. H., 48 years of age, born and raised in Virginia, gave a family history that was negative. Within a few months after his birth it was noticed that his right arm was not like his left, in appearance, but little was thought of it until he was about 4 years of age, when there was marked discoloration along the course of its superficial

veins. This discoloration, of bluish appearance, continued to increase very slowly, although it gave him little or no trouble for several years. He was subjected to all kinds of labor incidental to farming, which he continued to perform with increasing difficulty until he was about 22 years of age, when he could no longer allow his arm to be lowered for any considerable time, on account of the severe pain. For several years prior to this, however, he had performed very little manual labor with his right arm. Subsequently he engaged in various occupations that did not require the use of the arm to any great extent, but it was never free from pain unless elevated. During the last fifteen years or more he has been obliged to carry his hand above his head nearly all of the time. In walking along the streets he could be seen with his arm apparently resting on his head, as if his hat was about to blow off.

On or about Oct. 1, 1899, while passing through the doorway of his barn, a violent hemorrhage occurred,



Venocavernous Angioma.

threatening his life, and he presumed that he had struck his arm against some protruding obstacle as he passed in, but was not certain; it is possible, therefore, that there was a rupture of the exceedingly thin integument at the point of hemorrhage, independent of traumatism. Dr. W. F. Kuhn was called in and arrested the hemorrhage by the use of pressure forceps, when the wound promptly healed and the patient went about his business as usual.

I was called in consultation with Dr. Kuhn about six weeks before the amputation referred to later. At that time the cavernous tumors extended from the tips of the fingers to a point beyond the shoulder-joint. The index finger was particularly enlarged by venous caverns. On lowering the arm the blood would rush to the tips of the fingers, by gravitation, and on raising it again the same flow could be seen falling toward the shoulder-joint, and he said he could feel it as far as the chest wall. The returning blood seemed to be governed almost by gravitation. The skin covering most of the arm was exceedingly dark and apparently not thicker than tissue paper, when the arm was lowered. I advised an attempt at

*Read before the Jackson County Medical Society, May 10, 1900.

girdling about the middle of the forearm, at first with a view of ligating the veins in two places and dividing between them. If this had succeeded in the forearm I expected to have proceeded in like manner in the middle of the arm, and this operation failing I had determined to amputate at the shoulder-joint. The case did not present the usual neoplasm that we find in cavernous angiomas, but simply sacs of venous blood extending from the tips of the fingers to some distance beyond the shoulder-joint.

The patient entered the German Hospital on April 17. The next morning, after the usual preparations for amputation, and just before placing him on the operating-table Dr. Franklin E. Murphy photographed the arm as shown in the illustration. The pressure and pain were so great that the patient could scarcely hold his arm by his side long enough for the preparing for and taking of the picture. I believe that if at any time his arm had been held in this position for two hours or less, even had he been able to endure the pain, the skin would have ruptured. After obtaining the photograph, Dr. W. F. Kuhn administering the anesthetic, I operated, assisted by Dr. George Hamel and Dr. Murphy. Barely nicking the skin of the forearm, I opened up a large sac and enormous quantities of venous blood poured out. I soon discovered that there were no veins to be found anywhere, and therefore abandoned this operation and proceeded to amputate immediately below the shoulder-joint, as rapidly as possible. I realized four dangers in this case: 1, the danger from immediate hemorrhage; 2, the entrance of air through these venous channels; 3, embolism within the first two or three days, and 4, thrombosis within two weeks or more. The first danger was anticipated and guarded against and possibly the second was overestimated. The other dangers in the case were remote and we could have had no control over them. There was some little difficulty in stopping the blood that gushed from the axillary region outward; this venous hemorrhage occurring in large quantities from many sources, and probably preventing air entering the sinuses. As high up as I could feel, nearly to the subclavian vein, there was one sinus, so large that I could thrust two fingers into the cavity, which was what under normal conditions would be the *venæ comites*. As rapidly as possible we grasped the tissues surrounding the blood-channels, tied them en masse, and ligated the axillary artery low in its course.

On examining the arm after amputation, we found all the adipose tissue absorbed and a great deal of the muscular tissue destroyed, also the humerus, the only bone we examined, was extensively eroded in several places from pressure absorption. Doubtless the bones of the forearm and hand were similarly involved, but we could not ascertain their condition without destroying the pathologic specimen as prepared. The caverns that served as blood-channels were partitioned off more or less by septa resembling cobwebs; these septa were composed of connective tissue, trabeculae. There was not a vein to be found anywhere in the arm. The caverns involved the skin, which was the only external covering, and this was in many places as thin as tissue paper, while internally the cavernous spaces seemed to be supported by the deep fascia alone. The only reinforcing supports that these channels seemed to have were the web-like septa, or trabeculae referred to above.

On examining the authorities in my library I fail to find anything like a counterpart to the case, particularly

as relates to the extensive involvement, superficial and deep. A remarkable feature was the furious flow of venous blood outward from the axilla, and it must have come from the veins of the head and neck as well as those of the shoulder and trunk of the right side. I have little doubt that the subclavian vein and the smaller veins emptying into it and the axillary vein are mere caverns like those already described.

The patient has made an uninterrupted and rapid recovery without any suffering.

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MYOMECTOMY DURING THE SIXTH MONTH OF PREGNANCY. RECOVERY.

BY EUGENE R. LEWIS, A.M., M.D.

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As a member of the committee on the progress of surgery in the Missouri State Medical Society, I have asked the chairman to allow me to present this paper, which contains the report of a successful myomectomy made during the sixth month of gestation. No successful case of the kind is on record, so far as my knowledge goes, and I have been diligent in my efforts to find one recorded. Since the books at my command did not contain the information I desired on this subject, I addressed letters to a number of the prominent surgeons and physicians of our state and country. I quote from the letters of Prof. Howard A. Kelly, of Johns Hopkins University, Prof. Nicholas Senn, of Rush Medical College, and Prof. E. E. Montgomery, of Jefferson Medical College. Professor Kelly says: "I know of no case of intramural fibroid, i. e., one with a thick capsule of uterine muscle over it, which has been removed in pregnancy without provoking abortion," etc. Professor Senn says: "I have done many enucleations but without similar results; the case deserves a permanent place in literature. My enucleations were made on the non-impregnated uterus." Professor Montgomery says: "It has not been my privilege to operate upon a fibroid, intramural variety during pregnancy, etc." It is possible I may yet find that I have not made the first successful myomectomy upon the pregnant uterus, but so far, I am proud to be able to claim priority for my native state in this direction. The patient, Mrs. Pauline A., 27 years of age, primipara, was brought to my office in November, 1899, by Dr. S. D. Smith, of Cowgill, Mo. I had several examine her with me, and Dr. Smith had others do this, for her condition seemed to be rapidly growing worse and worse, and her distress called for action. Myomectomy as described by Howard A. Kelly was performed on the patient Nov. 27, 1899, at the hospital, before the class of the Women's Medical College, assisted by Drs. T. B. Thrush, B. L. Sultzbacher, Nannie P. Lewis and others. The uterus was in the sixth month of gestation, and the tumor, as large as a large orange, was situated superior and anterior to the tube on the right side. An incision in the linea alba, nine to eleven inches in length, was made to allow the extrusion of the entire gravid uterus and its appendages. The tumor did not involve the Fallopian tube, but projected out from the uterus like a large knot on a log. The serious complications liable to arise from an effort to remove the solid fibroid tumor were not underestimated, but were well considered. The rapidly failing health of the patient, the great distention of the abdomen, in