## ON AN AGGRAVATED CASE OF ANEURISMA RACEMOSUM.

PRESENTED TO THE SURGICAL SECTION OF THE NEW YORK ACADEMY OF MEDICINE, MARCH 13, 1903.

## BY CARL BECK, M.D.,

OF NEW YORK,

Professor of Surgery in the New York Post-Graduate Medical School and Hospital; Visiting Surgeon to the St. Mark's Hospital and the German Poliklinik.

THE extent of the vascular growth in the case presented must be regarded as extraordinary. Seventeen years ago the patient, a man of thirty-two years, noticed a small elevation of the skin, two months after he had been struck by a stone in the centre of his forehead. The small tumor grew constantly until it extended over the hairy scalp, the forehead, the temporal region, the nose, and the eye (Figs. 1 and 2). The soft, irregular tumor presented a bluish and reddish-blue appearance in some portions, while others were normal. The overlying skin was thinned and adherent. Pulsation was quite marked, and on auscultation a soft, intermittent murmur could be perceived. Digital pressure upon the peripheral blood-vessels had but little effect on the pulsation; even compression of the carotid diminished the pulsation but slightly. The pulsation of the tumor annoyed the patient considerably, and lately there were frequent attacks of dizziness. The most prominent portion of the tumor had burst twice during the last year, the hæmorrhage being excessive at each time.

Six weeks ago I ligated the temporal arteries (first), and four days later the frontal and angular arteries (Fig. 3). These procedures were followed by a slight diminution in the size of the tumor and lessening of the pulsation. Five days after the last ligation the extirpation of the tumor was undertaken. It was preceded by an interrupted prophylactic suture, carried around the normal tissues adjoining the tumor. In addition, an assistant used digital pressure, while the process of removing the tumor was going on. But in spite of the great care taken by him, the

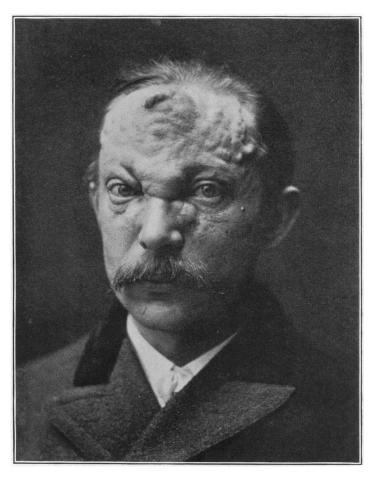


FIG. 1.—Angioma racemosum. Front view.

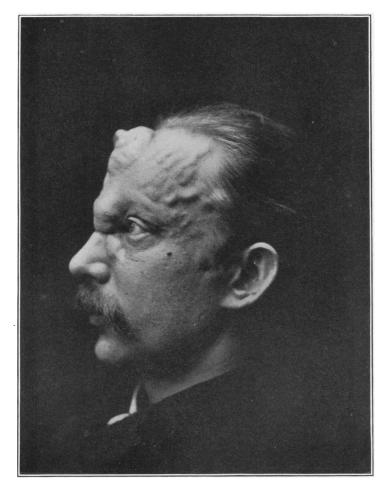


FIG. 2.—Angioma racemosum. Side view.



Fig. 3.—Lines of ligation and incision. (Four weeks after extirpation.)

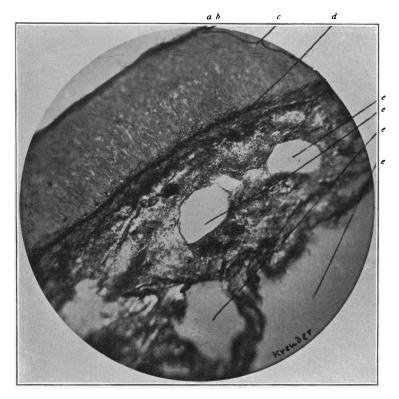


Fig. 4.—Aneurisma racemosum. a and b, intima and media; c adventitia; d, elastic layer; e, blood-spaces—empty.

hæmorrhage was profuse, so that the patient needed stimulation after the operation was completed. Recovery was uneventful.

The microscopical examination (Fig. 4) made by Dr. H. Kreuder, at St. Mark's Hospital, showed that the structure of the large vessels was predominantly that of veins. The intima and media were almost one layer, composed of an endothelial lining, outside of which was a sparse lot of smooth muscle-cells mixed with a small amount of elastic connective-tissue fibres, both of which were running in a circular direction.

The adventitia consisted of two layers, the inner one being thick and composed of smooth muscle-cells, running in a longitudinal direction, and held together by fibrous connective tissue, while the outer layer was made up of loose fibrous connective tissue. Between the two layers of the adventitia a small amount of elastic tissue was noticed, which might be looked upon as a separate layer.

The walls of these vessels were exceptionally thin in some areas, but did not show any signs of degeneration or inflammation. The tissue situated outside of the large vessels showed the structure of angiocavernoma, in which the walls of the blood-spaces were made up of a thin connective-tissue framework lined by a single layer of endothelial cells. In some places patches of round-cell infiltration could be seen between the blood-spaces which seem to be assuming a spindle form. Thus it would resemble cavernous angiosarcoma, but the clinical observation would point against the theory of malignancy.