Large aneurism of the innominate artery : report of post-mortem findings / by F. Griffith.

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LARGE ANEURISM OF THE INNOMINATE ARTERY: REPORT OF POST-MORTEM FINDINGS *

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NEW YORK CITY

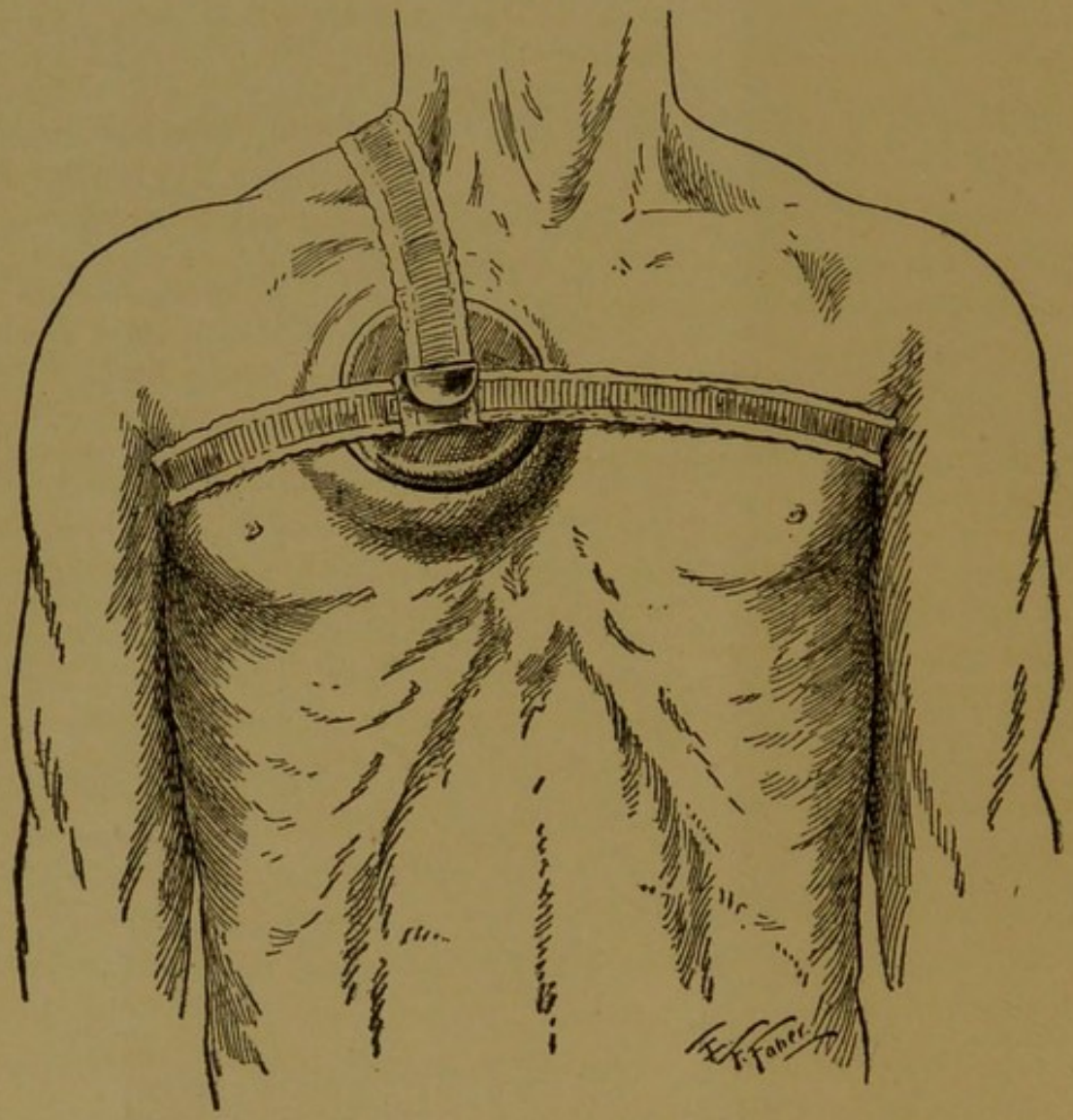
GENTLEMEN: Please hear the report of the previous physical state and corpse condition of patient T. G., aged 54, an English horse-trainer who died of an aneurism on second month, sixth, 1911. His family history describes his mother dead at forty years from unknown cause, his father at sixty-one from heart or lung disease. He had four sisters, two are living and well, two are dead from causes forgotten. He was married to a Spanish actress by whom there were eleven children. His wife died at the age of thirty-nine from lung disease. One child died at the age of five years from a broken neck sustained in headlong tumble from a horse during an act in the circus ring. Six other children died in infancy. Four children survive varying in age from sixteen to twenty-six and in temperament from pure Spanish to the more settled English personality. The health of all is good. A half-brother of the patient, a clown, committed suicide half a year ago. This grieved T. G. very much. His second wife, who had been the trained nurse to the first, died a year ago from alcoholism after ten years' marriage. The last visit of patient to America has extended over a period of fourteen months.

He had always a good appetite; took coffee and tea every day; used tobacco and drank beer. Had a single attack of gonorrhœa in 1881; told me he never had syphilis. Bowels always regular; sleeps well but is forced to get up to urinate once every night. Has no drug habits. In childhood patient had scarlet fever but recovered well. When twenty-four years old the patient was performing on a wire rope which broke beneath his weight. He alighted upon his feet; at the same instant one end of the wire in recoil stabbed him in the

* Presented before the New York Academy of Medicine, Surgical Section, at its meeting of May 5, 1911.

right chest. A penetration of four inches occurred at about the fourth interspace and in a point several inches from the median line. Half a cup of blood was spat up at once and the patient was forced to stay in bed for a fortnight after the accident. No scar upon the skin remains at this date. In 1906 a swelling began to form in

Fig. 1.



Surface view of the aneurismal tumor. A chamois hernia pad held as shown so as to make gentle pressure by use of soft elastic bands was devised by the patient, and worn almost continuously until the very last.

the third costal interspace extending outward from the right side of the sternum accompanied by attacks of shortness of breath. The swelling grew larger and became clearly outlined. Three weeks later the patient entered St. Thomas's Hospital, London, and stopped there under a rest treatment for a period of seven weeks when the swelling and shortness of breath entirely disappeared. A diagnosis of

innominate aneurism was made according to the word of the patient and he was warned upon leaving the institution to prepare himself for sudden death. Here follows a communication from the registrar's office of the London hospital:

Case P. N. 763. ST. THOMAS'S HOSPITAL,
WESTMINSTER BRIDGE, LONDON, S. E., Feb. 28, 1911.

DEAR SIR: I enclose abstract of Thomas Transfield's notes. We seem to have missed the correct diagnosis! I shall be very glad to hear what your postmortem findings were. Thanking you in anticipation,

Yours sincerely,

MAURICE A. CASSIDY, M.D.,
Medical Registrar.

"Thomas Transfield, aet. 50; circus performer; under care of Dr. Mackenzie in George ward. Admitted 30, 9, '09, discharged 2, 11, '09. *Past history*—typhus fever as a boy; 'rheumatic gout,' 4 years; syphilis many years ago, inadequately treated; definite history of physical strain; no history of alcohol. *Present history*—3 months cough and pain in the right side of the chest; occasional slight dysphagia; upper part of right chest noticed to be prominent 2 months. *State on admission*—patient was in no great pain or distress, lips slightly cyanosed; dilated venoles on face; cardiac dulness begins above at 4th left costal cartilage and extends to the left sternal edge; apex beat not located, heart sounds feeble, no murmurs; pulsating prominence to right of sternum, extending from 1st to 4th ribs, low pitched 2nd sound over this area, and dull note; tracheal tug present; definite air entry into right lung, and scattered rhonchi all over right lung. *Abdomen*—nil abdominal. Pupils are equal. Urine normal. X-ray screen examination shows a pulsating shadow to right of sternum, 'there is only very moderate increase of the shadow of the aorta to the left.' Under treatment with potassium iodide and rest he improved rapidly. He lost his pain and the pulsating swelling disappeared in size. *Diagnosis*—'thoracic aneurism.'"
—M. A. C.

The patient had suffered great financial losses in the few years previous. He returned to active professional work directly after leaving the hospital, but now noticed he was a little weaker in body. Faring along until March, 1910, a week after aiding to push some heavy stage apparatus, the swelling and shortness of breath reappeared, increasing progressively. The patient felt a dull heaving feeling, was conscious of distinct pulsation in the tumor, and of dyspnœa. He continued working until May, 1910, between May and September worked but two weeks. Towards the latter part of this period cough developed of brassy character and accompanied by white mucoid tenacious expectoration. His treatment during this time was rest and application of icebag to the swelling. The patient

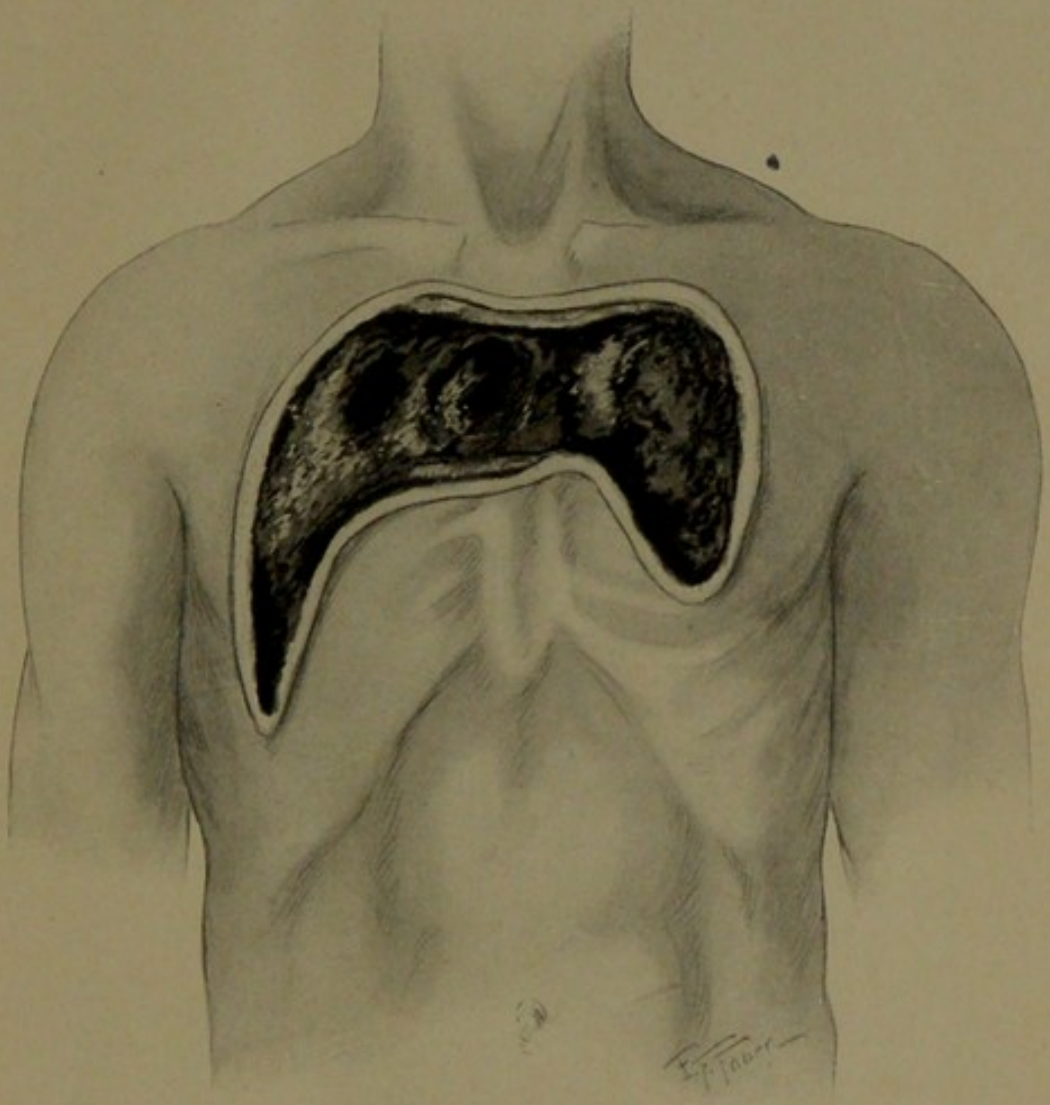
then entered Bellevue Hospital in New York City and continued there three months save one day, in bed under treatment. The hospital record shows him reported having chest well developed, symmetrical and normal, no adventitious sounds. Some slight tenderness over the epigastrium, abdominal walls of moderate thickness; no masses. The liver is palpable, dulness extends to 3 inches below costal margin. The spleen is not palpable. No œdema in the extremities, no wasting or tenderness, lymph-nodes not palpable. Reflexes normal. Chest percussion on right side relatively dull posteriorly. Anteriorly dull over upper lobe. Left side is inclined to be tympanitic. By auscultation determined bronchovesicular and bronchial breathing all over the left side anteriorly, and posteriorly particularly in left axilla. On right side fairly normal posteriorly but anteriorly is decreased or practically absent. Temperature ranges from 98.8 to 102° F. Pulse varies from 96 to 124. Respirations 20 to 32.

Later record shows vocal fremitus increased. Percussion dulness over right side anteriorly, laterally and posteriorly (slightly tympanitic) right, over left side anteriorly. Auscultation determines bronchovesicular breathing over right side anteriorly. Crackling râles on expiration. Over both lungs posteriorly a sharp reduplication of breath sounds are heard. At right shoulder-blade posteriorly, bronchial breathing is heard for an area of about 2 inches with directly transmissible voice sounds. Breathing anteriorly and laterally on right side is decreased. The swelling at second interspace next to right of sternum is about two-thirds its former size. Visible pulsation, expansile in character, is present. There is a systolic murmur heard over this area of a rumbling character. A blowing murmur systolic in time is heard at the apex; not transmitted. Urine contains no albumin or sugar, urea 10½ grains. Microscopic examination reveals flat epithelial cells, occasional white blood cells, some granular and hyaline casts. Thirty-four ounces passed.

Internal treatment, sodium nitrite, 1 gr., potassium bromide, 5 gr., chloral, 5 gr., with special diet.

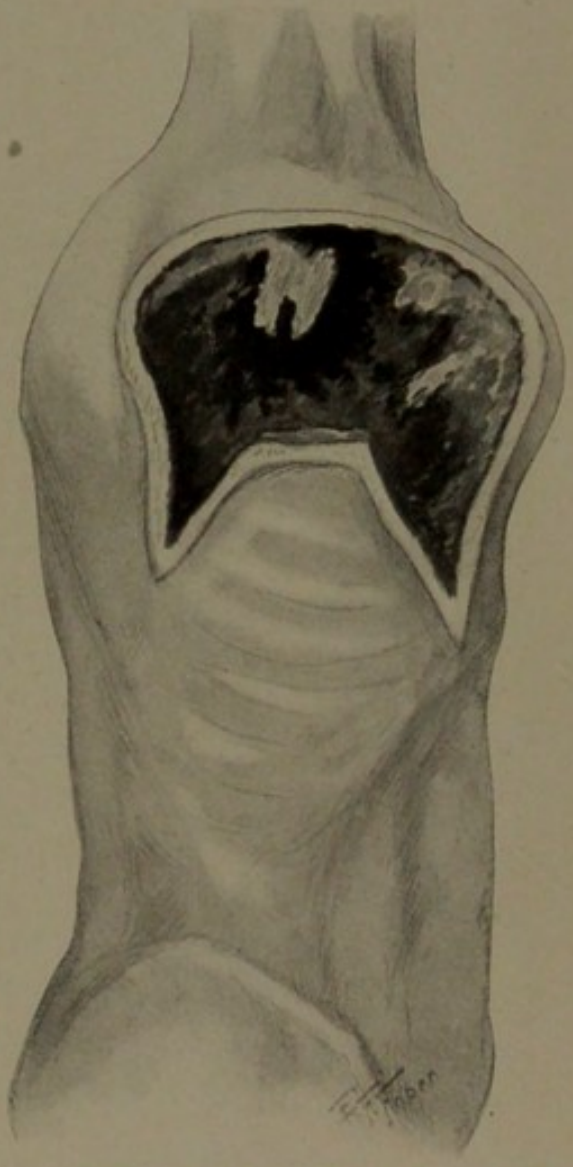
September 23, 1910: Note lungs of left side of the chest anteriorly gives marked bronchovesicular breathing sounds on auscultation. A systolic murmur at the apex, not readily made out, also systolic murmur at swelling is more distinct and is readily heard anteriorly over right side of chest. Blood-pressure, R. 110 mm., L. 104 mm.

Fig. 2



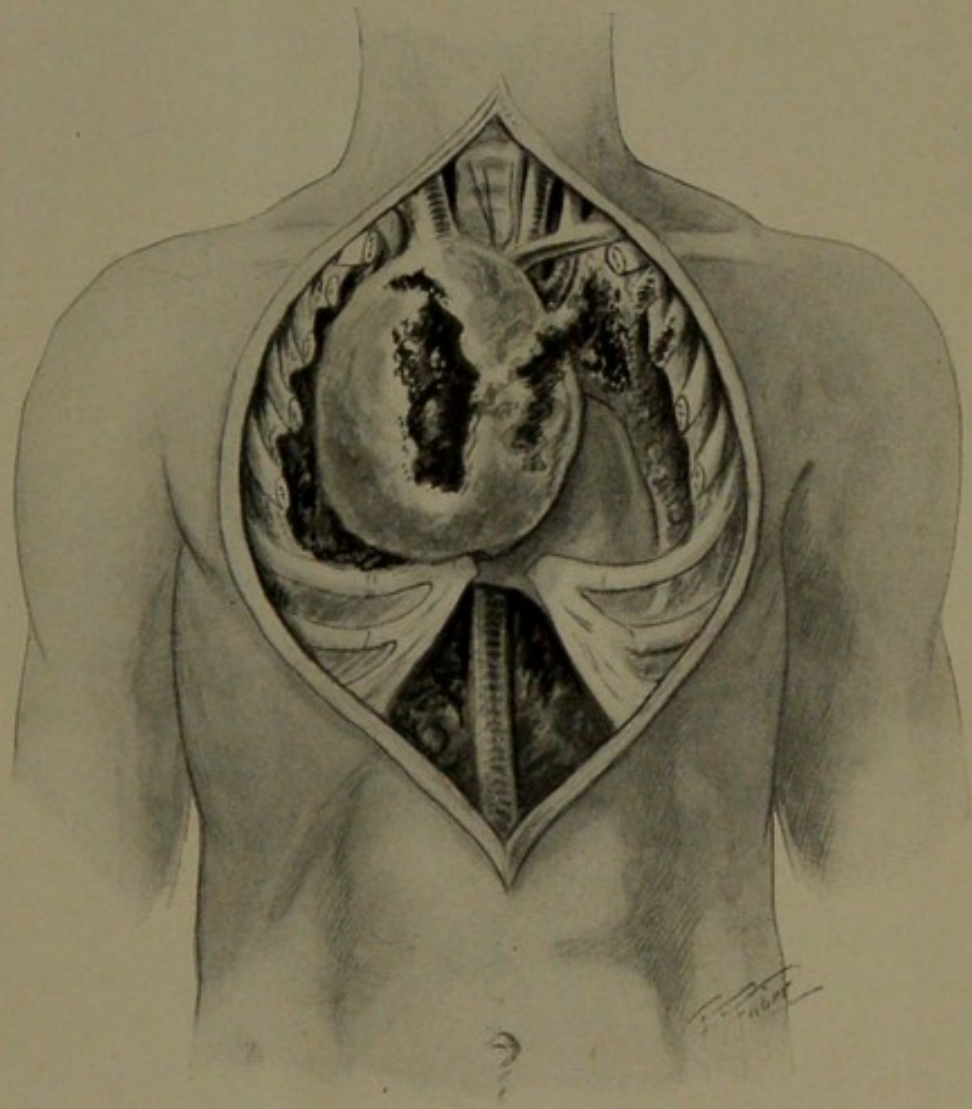
Front view of the aneurismal cavern after removal of the cardiac wall, showing blood clots.

FIG. 3.



Side view of the cavity of the aneurism. The U-shaped, centrally located matter represents two masses of soft gristle, butter-yellow clot hanging from the vault.

Fig. 4.



Front of the aneurism before opening its cavity. The central dark portion is heart muscle.

September 28: This note is entered: Left chest tapped and 5 c.c. of clear (red?) fluid withdrawn.

October 7: Treatment changed somewhat, the patient being given chloral, 5 gr., potassium bromide, 5 gr., tincture nux vomica, 7 min.

October 10: The patient was tapped again, right side, and 830 c.c. (25 f℥) of clear amber fluid was drawn. Specific gravity 1024. The specific gravity of normal blood at 60° F. is about 1055.

October 19: Report of no paralysis of throat. Patient seems to be going progressively down hill. Our diagnosis is aneurism of the ascending aorta, pleurisy serofibrinous. The patient appears to be improved.

The patient left hospital early in November and continued at home in about the same condition as has been recorded until the 27th day of December, 1910, when began my direct control of the case. I saw him every day, sometimes spending an hour or more with him until the time of his death. My history would be a repetition much like what I read to you from the Bellevue record. Sometimes over the tumor I could hear sounds like the rush of water through a turbine wheel; many times it was noiseless. The pulse stood at 120, but under systematic doses of one to three drops of tincture of aconite or veratrum viride, changing from one to the other for this patient bore medication badly, hence the small doses I gave proved adequate to keep the pulse at 90. Respirations were pretty constant at 27. Temperature always normal. His mind was clear excepting during several attacks of collapse, as on the first night I saw him. In the early evening of February 6, 1911, I sat beside his chair, for he had demanded to be set up in the afternoon, supporting his head in my hands for an hour when the stertorous breathing suddenly gave place to a swirling high-pitched note coming from his throat, and he ceased respiratory movement for half a minute, then gasped once and was still. His heart continued its tinkling beating for the space of some six or seven minutes longer. Two hours later I saw the interior of the patient's thoracic cavity and it appeared as a great cavern. On the right side I sank my gloved hand to the top of the gauntlet, upon the left side the space held my two clenched fists. The right lung was nearly flat, being

fused to the chest wall; the left was much compressed and seemed on section like hepatic substance. Blood clots shading from black to red, to yellow, to gray, hung from every wall and crevice. I opened a tubercular abscess ounce collection in the upper lobe of the left lung. The cavern was filled with a lake of blood and connected directly with the central aneurismal chamber which I took to be the ballooned innominate artery. I found no pericardium whatsoever. The chamber of the heart opened up I believe to be the left ventricle. It was choked with solid leathery clot as was the auricle. That there was a manifest and long continued course of repair is apparent until at the last Nature gave up the struggle to beat blood through the churn this heart was turned to and left the body lifeless. There was erosion through the third and fourth ribs over the prominence upon the right side. I proposed once to tie the right common carotid artery under weak cocaine anæsthesia, but the man said "I might put the light out," and I didn't coax him. Towards the last the patient's legs shrank and the thoracic aorta was found flattened and constricted, noticeably so. For its possible psychic interest is added the patient foretold to the housekeeper the time of his death with exactitude twenty-four hours before dissolution (Figs. 1 and 2).