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The Pulse

REPRESENTING THE
STUDENTS, ALUMNI AND FACULTY
OF THE
UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE

Vol. IX

JANUARY 30, 1915

No. 5

MEDICINE



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Experiment perilous
Decision difficult

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The Pulse



Vol. IX.

Omaha, Neb., January 30, 1915

No. 5

HYPOPLASIA OF THE AORTA.

By OSCAR T. SCHULTZ, M. D., Professor of Pathology and Bacteriology.

The way of the medical student grows constantly harder. He must learn all the well established facts relating to the thoroughly known diseases, and the inculcation of these facts is the essential aim of modern medical education. He must learn, besides, those constant and slight additions, even if they have not yet reached the rank of incontrovertible truths, which may help in the recognition of diseases not yet completely understood. The instilling of an ambition which in later years may help him to detect slight deviations from classical clinical categories, so that he may do his share toward the firmer grounding of knowledge relating to as yet incompletely understood conditions, is also an important aim of the medical teaching of today. In spite of the tremendous advances of medicine during the past few decades we do not yet know it all; medicine is still a fruitful field for research, for serious thought and for philosophical pondering.

It is the purpose of this paper to treat briefly of one rarer disease, since one of the cases which illustrate it shows rather well the orderly and serious sequence of events which may follow upon what in the beginning may be a slight and trifling anomaly.

Congenital abnormalities of the heart are not so very infrequent. Ordinarily they consist of unusual relations of pulmonary artery and aorta to each other, of incomplete closure of the septa, of failure of a chamber to develop, or of valvular maldevelopments. Vascular anomalies are frequent, but usually they are of no pathological or clinical significance, and their investigation is the province of the anatomist. Rarer, and of importance because of the serious consequences to which it may lead, as illustrated by the first case here reported, is congenital smallness of the aorta and its branches.

The exact incidence of the condition is difficult to determine, since a fair proportion of cases must go unreported. Vierordt, in 1898, was able to find thirty cases recorded in the literature. In 1905 Apelt wrote that the number of recorded cases had reached one hundred. Among the first sixty autopsies in the service of the Department of Pathology and Bacteriology, from September 1, 1913, to October 27, 1914, two cases, the sixth and the sixtieth, were examples of the anomaly.

The anatomist Morgagni made the first mention of an abnormally small aorta as a deviation from the normal in 1761. Rokitansky, in 1838, called attention to the association of congenital abnormalities of the genitalia, especially hypoplasia, with narrowness of the aorta.



OSCAR T. SCHULTZ, M. D.
Professor of Pathology and Bacteriology.

Wilkinson King, in the London Medical Gazette for 1841, under the title "Cases of Unnatural Narrowness of the Aorta; Consequences of the Malformation," discussed its importance and deplored the small amount of attention which it had received from clinicians. Virchow, in 1872, described smallness of the heart and narrowness of the aorta as postmortem findings in cases of chlorosis. Fraentzel, in 1888, made a clinical diagnosis of "allgemeine Enge der Aorta," a diagnosis confirmed at autopsy. The most complete study is that of Burke (Deut. Arch. f. klin. Med., 1901, p. 187), in which the previously reported cases are summarized and tabulated. Apelt (Deut. med. Wochenschr., 1905, xxxi, 1186-1189, 1233-1236) gives a good brief resume of the preceding work and a detailed study of two cases in which the diagnosis was made during life by Lenhartz. Maude Abbott has given a brief discussion of the subject in Osler's Modern Medicine (Vol. IV, pp. 416-419, Lea & Febiger, Philadelphia, 1908).

Most often smallness of the aorta is an autopsy finding of a condition which was unrecognized during life. Frequently the condition is associated with other abnormalities. Rokitansky called attention

to the associated genital hypoplasia. Virchow believed that a condition of dwarfism of the heart and arterial system might be an etiological factor in chlorosis. Ortner and Hiller believe that the condition predisposes to infection and Adami has noted it in young adults dying of tuberculosis. To these various associated conditions I would add generalized lymphoid hyperplasia, a condition which in its extreme grades is known as lymphatism or status lymphaticus.

A few cases have been recognized during life and the more recent writers upon the subject all emphasize those manifestations which should direct the internist's attention to the condition. The more important clinical data are the following: Arterial hypoplasia usually leads to manifestations and to death during the third decade of life. Previous to the terminal illness there may be little which leads to suspicion. Often the individual is slender in build and appears anemic. Burke pointed out that the marked pallor need not be associated with a true anemia, the hemoglobin often running as high as 90 to 100 per cent, but may be due to the small amount of blood which reaches the superficies through the narrow arteries. The apparently normal individual may be subject to attacks of palpitation or of weakness and cardiac distress after unwonted muscular exertion, or he may fatigue easily. Genital hypoplasia and the peculiar body type of lymphatism are other factors which might lead to the surmise of an hypoplastic arterial system in an individual otherwise normal. Subnormal temperature under ordinary conditions and only a slight febrile reaction in infectious diseases should be borne in mind and careful physical examination may reveal moderate hypertrophy of the left ventricle.

With the disturbance of the circulation, which marks the terminal phase of the condition, there is presented a clinical picture which should attract the attention of the careful internist. The circulatory breakdown occurs usually, as already noted, during the third decade of life and is ushered in by those symptoms which in general indicate a broken cardiac compensation: cardiac weakness and irregularity, shortness of breath, cyanosis, bloody sputum, vomiting, edema. The attack may be directly attributable to unusual exertion. Most important in the physical examination are dilation and hypertrophy of the heart in the absence of murmurs or other findings which would indicate an organic lesion. At the end there may be murmurs due to relative valvular incompetence. In one of Apelt's two cases, diagnosed clinically by Lenhartz, marked dilation of the heart occurred suddenly six days before death, the right limit of cardiac dulness being changed from within the right sternal margin to two fingers' breadths beyond. In both of Apelt's cases the suspicion of Lenhartz was aroused by the failure of digitalis to have any effect upon the heart. In the reported cases the duration of the terminal stage of cardiac breakdown, which has varied from seven weeks to one year, has borne no definite relation to the degree of aortic hypoplasia; thus, in a case reported by Grimm, with a duration of one year, the aorta measured 4.1 cm. in circumference, whereas in one of Burke's cases, with a duration of eight weeks, the aorta was 5.5 cm. in circumference. Other factors, such as the

degree of cardiac hypertrophy and the suddenness with which excessive strain is put upon the heart, must be important in determining the length of the terminal stage of broken compensation.

The first of our two cases of aortic hypoplasia occurred in the service of Dean W. O. Bridges, to whom I am indebted for the clinical history.

The patient, whose age was 29 years, was admitted to the Nebraska Methodist hospital September 18, 1913. He was able to walk into the hospital. By occupation he was a clerk. The family history was negative and in the scant notes upon his previous condition there is nothing which has any bearing upon his condition upon admission. His present illness began five weeks before admission with pain just below the xyphoid process. He was constantly nauseated from that time on, with frequent attacks of vomiting, usually after meals. He was often short of breath at night and after exertion. Six days before admission he suddenly developed pain on the right side of the spinal column, just below the scapula, and the sputum became bloody. The expectoration was at first dark in color, and then became lighter and frothy.

The physical examination upon admission showed a well nourished white male whose heart was enlarged, the apex being two fingers' breadths beyond the nipple line. There was a slight systolic murmur at the apex. Vocal fremitus and breath sounds were absent over the lower part of the right lung. The sputum contained blood during the entire time the patient was under observation.

From time to time after admission there were attacks of vomiting, the vomited material usually being blood tinged. On the ninth day after admission (September 27) the patient complained of pain in the epigastrium. By the next day the pain was very severe over the entire right side. This pain was the most troublesome symptom during the remainder of the illness. On October 2, the fourteenth day after admission and two days previous to death, the patient became delirious and edema of the feet was noticed. The pulse became irregular and weak and death occurred on October 4, the sixteenth day after admission and the beginning of the eighth week after the onset of his symptoms.

Two urine examinations are recorded; the specific gravity was 1021 and no albumin was detected. The urine quantity during the time in the hospital varied from 18 to 25 ounces per day.

The temperature was normal upon admission. It remained normal or slightly subnormal until the day before death, when it reached 101 degrees. On the day of death it was 102 degrees. On September 27 and 28, when the severe pain in the side began, the recorded temperature was 97 degrees.

The pulse was 80 on admission. It ran from 80 to 95 until September 27, when it went to 125, running from 110 to 120 on succeeding days and reaching 130 on the day of death. With the increase in rate the radial pulse became small and weak.

The respiration was 18 to 20 from the time of admission to September 27, when it increased to 25, later going to 30.

The clinical diagnosis was pulmonary infarction.

The report of the autopsy, which was done 12 hours after death, follows:

The body, that of a well built white male, is 167 cm long. The skin and conjunctivae are markedly jaundiced. Riger mortis is present. The subcutaneous fat is 2 to 3 cm thick over the abdomen; the body musculature is normal in color and well developed. The peritoneum is glistening, free of adhesions, and the cavity contains no excess of fluid. The lower border of the right lobe of the liver is at the level of the umbilicus. A lobulated mass of thymic tissue extends down to the upper portion of the pericardium, where the mass is 4 cm wide.

The right pleural cavity contains 2 liters of cloudy, blood tinged, yellowish fluid in which are flakes of opaque, yellowish material. The left pleural cavity contains no excess of fluid and is free of adhesions.

The pericardial sac contains a slight excess of clear, yellow fluid. The

apex of the heart is pushed over to the left, lying 5 cm beyond the nipple line.

All the cavities of the heart are distended and filled with dark red, clotted blood. The muscle is soft and flabby. The wall of the right ventricle is 3.5 mm thick. The tricuspid ring measures 12.5 cm in circumference; the valve segments are normal. The pulmonary ring is 8 cm in circumference, the valves thin and competent. The wall of the left ventricle is 8 to 10 mm thick. Between the ridges of the inner surface is yellowish to pale red, rather firmly attached material, having somewhat the appearance of being embedded in the ventricular wall itself. The muscle is pale, being especially pale and cloudy at the bases of the papillary muscles. The mitral ring measures 12 cm in circumference, the aortic 6 cm. Both mitral and aortic valves are thin and glistening, the mitral relatively incompetent. The heart weighs 420 grams. The root of the aorta shows a few small, yellowish areas of intimal thickening. The coronary arteries are thin walled.

The right lung is compressed against its hilum. The outer surface is covered with a shaggy layer of friable yellowish exudate. The lower lobe is dark red in color and almost completely consolidated and hard, only the anterior margin of the lobe being crepitant. The middle and upper lobes are crepitant, but compressed. Upon section the lower lobe is very dark red in color, the surface smooth and glistening; dark blood, unmixed with air, oozes from the surface. The upper and middle lobes are pale on section. The bronchi are normal. Upon dissecting out the branches of the pulmonary vein, the anterior division of the branch to the lower lobe is found to be normal. The two posterior branches are occluded by clots, beginning respectively 2.5 cm and 3.5 cm from the bifurcation of the bronchus. At the larger, proximal end the occluding material is yellowish red in color, rather firm and fairly well attached to the vessel wall. Further along, as the vessels decrease in size, the material is dark red in color, soft, rich in fluid, and more like the surrounding lung in appearance. The bronchial glands are moderately enlarged and somewhat congested. The lung weighs 620 grams.

The left lung is free of adhesions. It is markedly deformed by the heart, the displacement of which has formed a deep depression on the median aspect of the lower lobe, which is so compressed as to be only 5 cm. thick. Both lobes are crepitant. On section both are pale, the tissue of the lower lobe markedly compressed. The bronchi and vessels are normal. The lung weighs 370 grams.

Just beneath the capsule of the liver, especially that of the lower surface of the right lobe, are a number of dark areas, 1 to 3 mm. in diameter; they are less numerous beneath the capsule elsewhere; a few are present within the substance of the liver. They contain a clear, thin, greenish yellow fluid. The liver is soft and cuts readily. The cut surface has a well marked nutmeg appearance, the centers of the lobules being dark redish brown, the peripheral portions opaque, cloudy and yellow. The larger hepatic veins are patulous. The gall bladder, which is free of adhesions and stones, contains 20 ccm. of dark green, thin bile. The ducts are normal. The liver measures 28 by 18 by 10 cm and weighs 1300 grams.

The capsule of the spleen is not adherent. The substance is firm on section, the trabecular tissue not increased. The lymphoid tissue is readily apparent. The organ measures 10 by 7.5 by 4 cm and weighs 100 grams.

Seen through the capsule of the left kidney and causing rounded elevations are numerous cystic spaces which measure 1 mm. to 3 cm. in diameter. They are filled with a clear, watery, yellowish fluid. The organ cuts easily and the capsule strips readily. Embedded in the kidney substance, especially in the pyramids, are numerous cysts, like those seen through the capsule. The cortex, which is 7 mm. thick, is pale, cloudy and yellowish. The pyramids are congested. The kidney measures 14 by 6.5 by 5 cm. and weighs 230 grams. The pelvis and ureter are normal.

Beneath the capsule of the right kidney are seen cysts like those of the left kidney, one at the lower pole being 5 cm. in diameter. Such cysts, which

are all smooth walled, are also present in the kidney substance. The size is 12.5 by 6 by 5.5 cm., the weight 300 grams. The pelvis and ureter are normal.

The renal artery, at the hilum of each kidney, is unusually small, the lumen being 2 mm. in diameter. The wall is not thickened. The veins appear normal.

The adrenals and the pancreas show nothing abnormal.

The stomach is distended, its lower margin reaching the level of the umbilicus. Its external surface is smooth and glistening and free of adhesions. The mucosa is congested. Of the intestine nothing need be said except that the solitary follicles can be seen as very small, nodular areas. The mesenteric lymph nodes are slightly larger than normal.

The aorta is strikingly small. 4 cm. above the aortic ring it is 5 cm. in circumference. At the beginning of the descending aorta the external diameter is 16 mm. and just below the renal arteries 11 mm. The common iliac arteries are 5 mm. in external diameter, while the external iliacs are little larger than a normal radial. In the above measurements the thickness of the wall on each side is included. The wall of the aorta is less than 1 mm. thick and is only slightly elastic. The intima, along the posterior wall, between the ostia of the arteries, shows numerous narrow, slightly raised, yellowish, longitudinal ridges. The entire intima is bile stained.

The anatomical diagnosis, which will serve as a summary of the interesting postmortem findings in this case, is as follows: Fibrinopurulent pleurisy of the right side, with massive effusion. Hemorrhagic infarction of the lower lobe of the right lung. Marantic thrombosis of the right pulmonary vein. Compression atelectasis of the lower lobe of the left lung. Dilation and hypertrophy of the heart. Lateral displacement of the heart to the left. Parenchymatous degeneration of the myocardium. Interpapillary mural thrombosis of the left ventricle. Relative mitral insufficiency. Hypoplasia of the aorta and arterial system. Bilateral congenital cystic kidney. Persistent thymus. Passive congestion of the liver, kidneys and stomach. Cloudy swelling of the liver and kidneys. Icterus.

In addition to the above gross changes the following microscopic findings are to be noted:

The muscle fibres of the left ventricle are larger than normal, with large, blunt, deeply stained nuclei. Most of the fibres contain longitudinal pale areas and the cross striations are indistinct. In the basal portions of the papillary muscles and in the ventricle wall next the endocardium, connective tissue with young spindle nuclei and many lymphocytes separates the individual muscle fibres and is associated with partial and complete atrophy of many of them. The endocardium has been moderately thickened by an active proliferation of its connective tissue, which contains lymphocytes in fair numbers. The proliferating tissue of the endocardium extends out for a slight distance into the thrombus material; the latter is composed of fibrin and red corpuscles.

The aorta shows the small, narrow, faintly blue staining areas, running parallel with the circular fibres, of early arterial degeneration. With the elastic tissue stain many of the elastic fibrils of the inner half of the media are tortuous, swollen, irregular in outline, and broken. The intima, where it is not thickened in the later arteriosclerotic change, is unusually thin and contains few elastic fibrils.

Most of the parenchyma cells of the central zones of the liver lobules have disappeared and are replaced by a granular, pink staining material, in which can be seen a few scattered, still intact liver cell nuclei, together with considerable numbers of lymphocytes and a few endothelial leukocytes. These areas of necrosis vary in size, the smaller occupying a narrow zone immediately about the central vein, the larger replacing from one-half to two-thirds of the lobule and fusing with the necrotic areas of neighboring lobules. Immediately about the necrotic islands the liver cells contain large fat vacuoles. In the peripheral portions of the lobules the liver cells are

granular and swollen. The liver necrosis is apparently toxic in origin and would appear to be the cause of the terminal jaundice.

In the light of the autopsy the clinical side of the case is interesting. These points are to be emphasized. The terminal illness, which lasted seven and one-half weeks, was ushered in by vomiting, which must have been due to passive congestion, which in its turn was the result of a broken circulation. Three weeks before death pulmonary infarction occurred, due to thrombosis, which appears to have been marantic in origin. In this connection it is interesting to note that in Apelt's second case the upper right lobe was completely infarcted and there were multiple small hemorrhagic infarcts in the remaining portions of both lungs. At the time of admission the area of cardiac dulness was moderately increased in size and there was a soft murmur due to relative incompetence of the mitral valve, the result of cardiac dilatation. Seven days before death a terminal acute infection (pleurisy) began. To be especially noted and emphasized in this connection is that in spite of a reaction upon the part of the pulse and respiration and despite the severe pain which marked the subjective reaction, there was no rise in temperature. A leukocyte count at this time would have been interesting; there was probably no leukocytosis; unfortunately no blood examinations whatever are recorded upon the clinical sheets. The heart action finally became weaker and more rapid, the heart stopping in diastole. Having no apparent part in the clinical picture, but possibly bearing some relation to the pathogenesis of the vascular condition, are the persistence of the thymus with moderate generalized lymphoid hyperplasia and the congenital cystic kidneys.

The pulmonary infarction was recognized at the first physical examination. The gastric symptoms, however, misled the attention, which was directed toward ulcer of the stomach. In view of the involvement of the circulation, as evidenced by the heart itself and by the pulmonary infarction, this was unfortunate for the recognition of the true condition. Consideration of the clinical course of the disease after the patient entered the hospital leads to the belief that this case might have been added to the small number in which the diagnosis of aortic hypoplasia was made *antemortem*, if closer scrutiny had been given to the history previous to admission and to the circulatory apparatus after entrance into the hospital and if the development of a severe acute infection without febrile reaction had been recognized.

A second case is included in this report. Although there is no clinical history the case is anatomically one of aortic hypoplasia and it is included because associated with a marked grade, anatomically speaking, of lymphatism.

The man, whose age at the time of death was 24 years, had been a cocaine user and was found dead, supposedly from an overdose of the drug. The body was 165 cm. long and well nourished. The thighs were broad and heavy, giving to the body the female type which has been noted as one of the characteristics of lymphatism. There was only a light growth of hair upon the face, the hair on the body generally was fine, the axillary hair was small in amount, and the pubic hair had the sharp, horizontal upper boundary characteristic of the female escutcheon.

Only the essential autopsy findings need be here given. The thymus, which is composed of two lobes which extend down to the upper part of the pericardium, weighs 22 grams. The lymphoid tissue of the intestine is more prominent than normal and the mesenteric lymph nodes are moderately enlarged. The auricles of the heart are somewhat distended. The wall of the left ventricle is 2 cm. thick, that of the right ventricle 6 mm. thick. All the valves are normal. The heart weighs 375 grams. The aorta is 4.5 cm. in circumference at the beginning of the arch, 3.4 cm. at the celiac axis, and 3.0 cm. at the bifurcation. The wall is 1 mm. thick. The intima is nowhere thickened and the aorta is elastic. The microscopic examination of the aorta may be given here. With the elastic tissue stain this aorta is much richer in elastic fibrils than the aorta of the first case. The fibrils are in general thin, smooth, straight and unbroken. Elastic tissue appears to predominate over muscle tissue in the media. The intima, which is two to three times as thick as that of the first case, is of about normal thickness and contains numerous very fine elastic fibrils.

In this second case we have no evidence, in the absence of a clinical history, that the stage of circulatory breakdown had been reached. The hypertrophied and undilated condition of the ventricles of the heart, together with the elasticity and absence of degeneration of the aorta, would indicate that the final stage of decompensation had not been reached.

We may summarize what has been said above as follows: Aortic hypoplasia is a condition of some clinical significance. With a careful consideration of the history and of the physical findings the ante-mortem diagnosis should be made more frequently than is actually the case. During early life the presence of the condition can perhaps be only surmised. During this early stage the features of importance are pallor, which does not yield to any treatment for anemia and which need not be due to a true anemia; fatigue upon slight muscular exertion; attacks of cardiac weakness, dyspnea or palpitation after unusual exertion; subnormal temperature under ordinary conditions or slight febrile reaction in acute infectious diseases, with diminished resistance to infection; and gradually developing hypertrophy of the left ventricle. During the terminal stage of decompensation, which usually occurs during the third decade of life and may last from a few weeks to a year, the clinical manifestations are in general those of a broken compensation of any cause: passive congestion with its attendant signs and symptoms; rapid and irregular heart action with a weak and small pulse; and cardiac dilatation. The important diagnostic point is the occurrence of decompensation in an individual 20 to 30 years old, with no findings in the physical examination of the heart which would account for the broken compensation.

Of the pathogenesis of the abnormally narrow arterial system nothing very definite can be said. Virchow believed that the condition might be due to dwarfism or retarded development of a circulatory system whose embryonic anlage might be normal. Most later writers consider the condition a congenital hypoplasia, which in the strict sense of the term would mean a circulatory system anlage abnormal in the small size or in the decreased number of its constituent elements. In early life the heart is also usually small. The cardiac hypertrophy is a later development and one which is not

easy to explain in the presence of the abnormal elasticity of the aorta which has been noted in many cases. Theoretically this should compensate for the narrowness of the lumen. It would appear, however, that the elasticity is not great enough to compensate for the heavier demands put upon the heart by increased growth of the rest of the body and by increased muscular work as the individual reaches adolescence. Furthermore, with an hyperelastic aorta stretched during systole to such an extreme degree that the lumen temporarily approaches that of a normal aorta, there may be a fleeting moment at the end of each systole during which the heart is working against an unusually strong force. A moderate cardiac hypertrophy results, the hypertrophy being gained at the expense of cardiac reserve force. From the twentieth year of life on two factors are of grave importance for the individual. The arterial system, and especially the aorta, whose elastic tissue has attempted to compensate for the abnormally small lumen by increased elasticity, that is, by overwork, is prone to degenerative changes and to arteriosclerosis, with consequent gradual loss of elasticity, because of the continuous overwork since birth. In our first case arteriosclerosis had already made its appearance. With degeneration of the arterial elastic tissue the narrow lumen is no longer compensated for and an excessive amount of work is thrown upon the already hypertrophied heart. This second factor of increased work, demanded of an hypertrophied heart with low reserve force, is the direct cause of the circulatory breakdown during the third decade of life, the striking clinical feature of aortic hypoplasia, and the inability of the heart to meet the continuously increasing demands is the cause of death.

DISPENSARY.

Miss Stuff attended the Nebraska State Nurse's Association held at Lincoln, January 12. She presented the Report of the Nurse's Examining Board.

The Dispensary was in charge of Mrs. DuVal, R. N., for the day. Mrs. DuVal was formerly in charge of the Free Dispensary of Northwestern Medical College, Chicago.

Just before going to press note was received that Miss Stuff has tendered her resignation as nurse in charge of the Medical Dispensary to become superintendent of the Wise Memorial Hospital.

The College of Medicine received a friendly call from the Council on Medical Education of the American Medical Association, on Dec. 17th. This council makes an inspection of the various colleges each year. Their visit is an unheralded one, but this visit was non-official as far as our school is concerned. The committee is composed of Dr. W. G. Means, Dean of Ohio State Medical College; Dr. E. P. Lyons, and Dr. N. P. Caldwell. They showed a lively interest in every department and commended us on the organization and equipment of the school.

Patient describing symptoms of gas on the stomach: "I was von time shortness of breath. Now I have been blown up."



Alumni News Notes

Dr. M. D. Baker, '05, of Tilden was in Omaha, January 19th.

Dr. B. L. Perlee, '01, has moved from Uehling, Neb., to Moorcroft, Wyo.

Dr. David W. Beattie, '07, of Neligh, Neb., died suddenly a short time ago.

Dr. E. B. Erskine, '14, a member of last year's Pulse staff, is now located at Wayne, Neb.

Dr. Lee B. Van Camp, '98, of Omaha, has been appointed county physician of Douglas county.

Dr. W. C. Moodie, '12, and Mrs. Mabel Odom of Macy, Neb., were married, November 7th and will make their home in Newcastle, Neb.

Dr. Andrew Harney, '13, of Craig and Dr. S. A. Swenson, '10, of Oakland are president and secretary, respectively, of the Burt County Medical Society for 1915.

At the semi-annual meeting of the Elkhorn Valley Medical Society held recently in Omaha, Dr. H. G. Morris, '05, was elected a vice-president; Dr. A. P. Overgaard, '00, secretary, and Dr. E. L. Brush, '06, treasurer.

A DIETARY FABLE.

Once upon a time, a lank, anaemic agriculturist, with a redundant Adams-apple and protruding knees, consulted a physician in regard to his case. He was directed to eschew for a season all sweets and pastry, including the seal-brown molasses in which he was wont to wallop his flap-jacks of a morning, and the tempting, but well nigh suicidal pumpkin pies which it had been his habit to indulge in as a beverage, so to express it. The doctor told him to take plenty of exercise in other ways than discussing politics, and to confine himself to a diet of animal foods. After paying what was due, the farmer went his way, credulously believing that the doctors knew more than common folks, but a few weeks later, he returned in a decidedly pessimistic frame of mind to prove to the physician by ocular demonstration that his health was in no wise mended. He had faithfully followed the directions as to exercise; but declared that while the corn and oats and chicken-dough had not "'peared" to injure him to any great extent, he really and truly believed the timothy hay had upset his "stummick" for good and all.

Moral:—From this we should learn that it is small wonder that the perveying of gold bricks continues to be a pleasant and profitable avocation.

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EDITORIAL

"The blast of war that blows in our ears makes the still small voice of science inaudible," says a recent number of the British Medical Journal. We wonder if that can be nearly as hard on Science as the roar of examination week in college.

The typewriter in THE PULSE office apparently became infected with Rheumatic fever during the holiday season. The chief symptoms are a crepitanee, limited motility and pain to the operator's hands in the operating of same.

Beginning February 8th, three seniors will be appointed to have charge of the taking of the histories of new patients, and the records of the case. One clerk will take care of the miscellaneous cases, as for example the eye and ear, etc.; the second clerk will have charge of the surgical cases; while the third will record the medical cases. Blank sheets have been printed, and there will be charts for examination of sputum, feces, etc. The clerks will serve two hours daily for one month, when three more seniors will be appointed. Seniors so assigned, will be excused from dispensary.

THE REGENTS' RECOMMENDATION TO THE LEGISLATURE.

In accordance with the best authorities on medical education, four years of the combined academic medical six years are now given in Omaha. The development of this college has been gratifying. When the building was erected it was supposed that sufficient room had been provided for many years to come, but in spite of the high standards of scholarship maintained, the growth in attendance has been such that the building is already inadequate and provision for more room must soon be made. The best clinical facilities are generally to be

found in large centers of population, and this was the main point considered in locating the Medical College at Omaha. The well equipped hospitals of the City of Omaha and suburbs was also an inducement. The time has come, however, when a medical college should have a hospital of its own. The Regents therefore recommend that an appropriation out of the general fund of \$150,000 be made for a hospital to belong to the State of Nebraska, and to receive patients from all parts of the State under such terms as the Regents may decide. They recommend further that the maintenance fund be at once increased to \$75,000. Two years ago the maintenance and equipment fund amounted to \$60,000. If the maintenance fund is increased to \$75,000 it will care for the new equipment and no special sum need be included for this purpose.

Below will be found a copy of the bill for the hospital appropriation as it was introduced to the legislature.

House Roll No. 29.

A BILL.

For an Act to appropriate \$150,000 for a hospital and other permanent improvements on the campus of the University of Nebraska Medical College at Omaha, and to define the purpose of the same.

Introduced by Representative Fred Hoffmeister of Chase.

Introduced and read first time January 12, 1915. Read second time January 14, 1915. Referred to Committee on Finance, Ways and Means.

Sent to Printer January 14, 1915.

Be it Enacted by the People of the State of Nebraska:

Section 1. It shall be the purpose of this Act not only to provide facilities for the medical and surgical care of worthy sick poor who may be sent under the Regents' Rules to said hospital by the county authorities of any county in the state, but to advance medical education at the University of Nebraska Medical College.

Sec. 2. There is hereby appropriated out of the State General Fund the sum of \$150,000 for a hospital building, and other permanent improvements on the campus of the University of Nebraska Medical College at Omaha.

Sec. 3. Warrants to carry out the provisions of this Act, not exceeding \$150,000, shall be drawn by the Auditor upon certificates presented by the Board of Regents and warrants so drawn shall be paid by the State Treasurer.

Sec. 4. It shall be the duty of the Board of Regents to prescribe rules for the admission and the medical and surgical care of indigent patients who may be sent to the hospital by the county authorities of any county in the state, and to prescribe the conditions for the admission of all patients thereto and their discharge therefrom and to take all other needful measures to promote the efficiency of said hospital.

The Phi Rho House has just received a very large elk head from Dr. Oliver Chambers, '03, Rock Springs, Wyo., to add to the interior decorations.

MUSINGS OF A MEDICAL STUDENT.

I.

It isn't what we do or say,
It's all in the way you do or say it;
What would the egg amount to, pray,
If a hen got up on the roost to lay it?

II.

The lightning bug is brilliant
But he hasn't any mind;
He blunders through existence
With his headlight on behind.

III.

A thoughtful man will never set
His tongue a-going and forget
To stop it when his brain has quit
A thinking thots to offer it.

IV.

The window has four little panes
But one have I;
The window's panes are in its sash
I wonder why?

V.

My feet, they haul me round the house
They hoist me up the stairs:
I only have to steer them
And they ride me everywhere.

VI.

We can't all smoke ten-cent cigars,
Or drive a limousine.
But we can all collect the bands
And smell the gasoline.

VII.

A peevish medical student am I;
My star is gone from yonder sky
I think it went so high at first,
That it just went and gone and burst.

VIII.

And now kind friends, what I have wrote
I hope you will pass o'er,
And not criticize as some have done
Hitherto heretofore.

“What book do you find most useful in your practice?” asked a young doctor of an experienced physician.

“Bradstreet's,” was the ready reply.

CLASS NOTES

JUNIOR NOTES.

E. C. Sage, Editor.

Horton holds the chair on skin parasites.

What Dr. Patton's roll book shows:

Park

Riley

Mr. William Lytle Ross, Junior.

Rubnitz, etc.

Dr. Hull: Why, if we refrained from operating on every patient with mitral lesions, we would be wearing soles without any shoes on them.

Drs. Davis and Owen are going to confer the "Iron Cross" upon members of the Junior class who attended their clinic for the Elkhorn Medical Society. If it had not been for the Juniors there would have been no audience.

Dr. Hollister to the class: "In pathology, when you don't know where things come from, what do you lay it to?"

A mixed chorus from the class: 1. "Connective tissue."
2. "Syphilis."

SOPHOMORE NOTES.

L. Riggert, Editor.

J. A. Johnson: "In the A. P. & S. pill the belladonna acts as a vehicle."

Dr. Pilcher: "In what part of the intestine do we find tapeworms?"

Bocken: "In the stomach."

What is the difference between Wildhaber and a wild hyena? We don't know, but it isn't the laugh.

Lilburn Lake, our Kentucky classmate, is authority on hanging and fitting noose. You are referred to his book on Physiology or Vertebral Column.

Dr. Pilcher's latest is research work in Photography, the specialty is taking pictures of the rising sun as it appears above the horizon.

Dr. Pilcher: "Riggert, how would you prescribe castor oil?"

Riggert: "In grain capsules."

J. C. Davis is a promising developing physician. He has lately acquired a mustasche and stethoscope, and we expect the appearance of a full Van Dyke in the near future.

History repeats itself; Sigworth has another new girl.

Brix and Nedergaard claim to have found the cure for cancer and tuberculosis. Class '17.

"Doc" Talcott, who used to smoke 15 cigarettes a day, now smokes 16 cigars. From bad to worse.

This is our transitional stage—going from Physiology and Pharmacology to Pathology, Bacteriology and Obstetrics.

FRESHMAN NOTES.

R. P. Westover, Editor.

Lloyd Myers who has been sick for a week has returned to his studies.

We are sorry to announce that "Monty" Edson has left school and is now a traveling salesman.

"Speed" Cassidy started something he could not finish when he mixed with the Farnam street gang. We would like to know who finished the fight.

The high cost of living does not prevent Miller from throwing "steaks" at "Ike."

"Hoots" Norvell and Dr. Van Buren have signed a peace treaty during vacation.

We would like to know who put the balsam on "Ike" Shembeck's chair in histology lab.

"Tex" Brewer has been offered a place on the Omaha police force because of his ability in handling burglars. This must have come from "Tex" himself.

Beede has been unusually quiet recently on account of a swelling in his left jaw.

"Sandy" Gifford got so excited at unexpectedly finding a nerve, that he stepped in the slop jar. Since then he has been very careful to keep the jar on the opposite side of the table.

MEDICS.

The ring of the flesh-cutting surgeon's knife,
The rattle of dead men's bones,
And the reek of dripping, dripping blood
Along with the patient's moans.

Rip and slash,
cut and gash;
Death hath no terrors for us,—
Suppose we cut a little too deep,
Suppose men curse and women weep,
We're used to it, used to it, used to it all,
To perdition with the rest.

The miles and miles of bandages,
The smell of ether, sweet,
The flow of the ebbing, ebbing tide
Where the Life and Death streams meet.

Cut and hack,
Forward, back;
Death has no terrors for us,—

Suppose the rattle of death's in the throat!
 Suppose the soul's awaiting Death's boat!
 We're used to it, used to it, used to it all,
 To perdition with the rest.

The rooms and rows of snowy cots,
 Where everyone's on the level;
 Where we know they're getting, getting well,
 And we'll charge them like the devil.

Rich or poor,
 King or boor,
 They're all on a level to us,—
 Suppose we charge a little too much,
 And the poor ones weep and the rich ones cuss;
 We're used to it, used to it, used to it all,
 To perdition with the rest.

—“Tex” Breuer, '18.

REFLEXES AND IMPULSES

ADVICE FROM THE MAN HIGHER UP.

“Don't think you are going to Heaven on that set of papers.”

“We appear to be living in the Cancer Age. We are now busy saving the lives of the younger individuals from the infectious diseases only to let them die of cancer in later life.”

“You are beginning to be very vague, always leaving a hole to crawl out. That is the first requirement of a doctor. Keep it until you get out.”

“Never expect your patient to have any reasoning power.”

“Whether an infant of that age feels or not I don't know. I do not remember.”

When asked the treatment of malaria, say, ‘quinine’ and shut your mouth.”

“Trauma is an etiological factor in peptic ulcers. Brewery teamsters carry heavy loads about on their stomachs and are particularly subject to the trouble.”

“Don't let your patient get into the ragged edges of the great Hereafter.”

“Since it has been known that syphilis is transmitted from monkey to monkey, more has been done toward securing a cure for the disease.”

“Speaking of nerve regeneration, ‘You need all the nerve you can get.’”

“After using the cautery over the area of a sciatic nerve in a case of sciatica, it is surprising to see how your patient will get up and walk out of your office.”

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