when the pulp spaces are overdistended with blood, the corpuscles do not return to the veins after the pressure in them has been removed. If there were a constant circulation from the ampullæ through the tissues into the vein, the blood discs in the pulp spaces should be forced into the veins in the above experiment. Furthermore, if the muscle of the spleen is paralyzed by cutting its nerves, a great quantity of blood passes over into the pulp spaces causing a hemorrhagic infarction, which shows that the elasticity of the reticulum alone is not sufficient to keep the blood out of the pulp spaces. If all the circulation of blood were through the pulp spaces, and if the contraction of the muscle of the capsule and trabeculæ forces the corpuscles from them into the veins, then the pulp spaces should remain empty after the obstruction of the veins which produced an infarction has been removed. These experiments are considered now only to the extent in which they relate to the walls of the ampullæ. Their bearings are of such great physiological significance that they will be discussed more extensively presently.

The walls of the arteries are surrounded with a sheath of lymphatic tissue throughout its whole course. The layer of round cells is greatly reduced around the first third of the ampulla, but it often increases again at the end of it, thus aiding to separate the first third from the second. From the end of the first third of the ampulla to the vein there are no marked walls, not more than the increased number of reticulum fibrils (Fig. 4461). Injections with solutions of nitrate of silver outline the first third of the ampulla extremely well, and show that the sharp endothelial lining of the artery reaches nearly to the ampulla. Then the cells become irregular in shape and finally are represented as long spindle cells which lie upon a framework of reticulum. Throughout the second third the walls of the ampulla are still faintly marked by spindle and multipolar cells, but I have been unable to demonstrate any distinct cell walls in the last third. In sections of uninjected specimens this third appears to communicate as freely with the pulp spaces as with the veins.

The sections and injections show (1) that the walls of the ampulla become more and more porous as the vein is approached; (2) that the walls of the whole venous plexus of the lobule, especially in the distended spleen, are also very porous; and (3) that at the point of junction between the ampulla and the vein there is no marked blood-vessel wall other than a dense network of reticular fibrils.

The experiments show that if the muscle is paralyzed the blood discs enter the pulp spaces, thus causing a hemorrhagic infarction, and that under normal conditions all the tissues are bathed in plasma while the solid elements of the blood pass directly from the ampullæ into the veins.

Experiments on the Circulation through the Spleen.—The experiments here recorded were made to test what influence the contraction of the trabeculæ and capsule may have upon the circulation through the spleen. It is well known that at certain times the spleen is very hyperæmic and dilated, while at other times it is anæmic and contracted. In addition to this periodic change in volume its muscle is also constantly contracting rhythmically. Since the arteries are very long and slender and end in so many branches it is evident that the resistance in them must be very great. Their muscle walls are also so powerful that it is practically impossible to inject them completely in a contracted spleen. If artificial circulation is carried on through a spleen in which the muscle is alive and contracted, it is found that the spleen must be distended considerably before any fluid comes out of the vein. This usually takes a number of minutes after the artificial circulation is started, and from it we must conclude that the circulation through a distended spleen is much easier than through a contracted one.

I have been unable to obtain this result in the living animal with the normal circulation unbroken, for all the operations which I performed upon the veins always caused the hyperæmic spleen to contract. A number of experiments, however, gave some good data regarding the venous outflow in a spleen fairly well contracted, as usually seen in the living animal. With all the arterial anastomoses ligated the quantity of blood which flowed from the vein was usually 25 c.c. every five minutes, or about two drops per second in dogs weighing 10 kgm. When we consider the five hundred million arterial endings in the spleen we realize how very slow the circulation must be through them. In the intestine of the same animal there are not over five million arterial terminations and the blood simply rushes through the superior mesenteric vein. I have never been able to measure the quantity of blood which passes through splenic veins when the spleen is hyperæmic, but it is very free when artificial circulation is carried on through the distended organ. If the spleen is made very hyperæmic by ligating the veins in a living animal there is a great gush of blood from the vein in case it is opened; but accompanying this there is a corresponding contraction of the organ, showing that in addition to the natural circulation through the spleen the blood lodged within it is also pressed out by the contraction of its intrinsic muscles.

When a spleen, which is physiologically hyperæmic, is irritated either directly or through its nerves, it is found that the contraction which follows forces the blood contained in it through the vein and then it becomes pale. The same result is observed when an hyperæmic spleen is completely removed from the body; it gradually contracts and forces the blood contained in it through the vein. These observations indicate that when the blood is once within the venous plexus and large veins of the spleen a contraction of the muscles forces the blood out through the vein, thus aiding in the circulation through the organ, as is the case in the intestine. The presence of valves at the point where the veins leave the spleen prevents the blood when once forced out from returning to the organ again when its muscle relaxes. To test this point I made a number of experiments, measuring the pressure within the vein, after it had been tied, while the spleen is contracting. Unfortunately the activity of the muscle of the spleen varies very much in different animals, and I have been unable to control this factor. In some experiments the spleen simply continued to distend after ligating the vein without any perceptible increase of pressure in the vein. At other times the spleen responded beautifully when irritated. In one experiment the venous pressure was 15 mm. Hg. before closing the vein; after closing, it rose to 180 mm. Hg. After it had reached this height ligating the artery further irritated the spleen muscle, causing the venous pressure to rise to 190. In another animal the venous pressure in the spleen with the vein closed registered every five minutes as follows: 20, 70, 106, 60, 140, 90 mm. Hg. At no time could I observe any contraction of the organ. The maximum pressures of 106 and 140 mm. were in each case accompanied by great struggling of the animal. In another spleen the venous pressure registered constantly at 7 mm. Hg. after closing the splenic veins, and the organ was gradually becoming hyperæmic. Irritation of the nerves about the artery caused the venous pressure to rise to 20 mm., but this would soon fall again to 7 mm. All other irritants, like hot water or closing the artery, did not cause the spleen to contract nor the venous pressure to rise.

These experiments, although incomplete, show that the contraction of the spleen causes the pressure in the splenic vein to rise, and from what has been said above regarding the anatomy of the spleen this is to be expected. Therefore it is highly probable that the physiological rhythmic contraction of the spleen, acting partly upon the veins, is a great factor in the circulation through the organ.

While we can cause contraction of the muscle of the spleen, and observe its effect upon the venous blood pressure, we can also make the opposite experiment by paralyzing the muscle. Jaschkowitz [12] has shown by cutting the nerves around the splenic artery that an extreme hemorrhage into the pulp spaces follows. I have repeated Jaschkowitz's experiment a number of times and obtained his results in each case. In making the experiment I isolated the artery and vein completely with a probe and passed a double ligature around all the tissues about these vessels. After tying both ligatures I cut between them, thus excluding every possibility of an error. In certain experiments an individual nerve or the nerves around one branch of the artery were not cut, thus making the control experiment at the same time. At the end of twenty-four hours the animals were killed, and in each case there was an extensive hemorrhagic infarction of the spleen; if all the nerves had been cut the hemorrhage was throughout the whole spleen, while if certain nerve branches were not cut, the spleen tissue innervated by these branches remained unchanged. Before killing the animals, first the vein and then the artery was opened, showing that there was no obstruction in either of them due to the operation. Irritation of the spleen with hot water caused no contraction in case all the nerves had been cut, while if some nerves remained uncut, the portion of the spleen innervated by them would respond to irritants. The border line between the normal and hemorrhagic, which was very hyperæmic, would respond to irritants. This last test undoubtedly shows that within every portion of the spleen there is an overlapping of the nerves, as is the case in many other portions of the body.

Since irritation of the splenic nerves causes contraction of the spleen, and since cutting the nerves causes paralysis of the muscle of the spleen, it is probable that the results upon the circulation following these two experiments are due to the excessive or diminished activity of the muscle. On the one hand, the contraction presses blood out of the spleen, while on the other hand the removal of this force allows the blood to accumulate in the spleen. Sections of spleens made hemorrhagic by cutting the nerves show that whenever the tissues are filled with blood the veins are likewise filled, but in numerous places the veins are full and the pulp spaces empty, corresponding with the results obtained by Thoma after tying the splenic vein. It therefore seems that the pulp spaces are in all cases filled with blood through the openings in the walls of the veins. Yet I am unwilling to accept this explanation until further arguments are made to support it, but am rather inclined to the idea that the pulp is filled with blood through the openings in the walls of the ampullæ.

The reasons why I believe that the escape of blood corpuscles is through the walls of the ampullæ to produce the hemorrhagic infarction after cutting the nerves are: (1) the anatomy of the ampulla; (2) the fact that granules injected into the artery pass mostly into the veins and partly into the tissues; and (3) hemorrhagic infarction produced in other organs takes place mostly through the capillary walls.

I have shown sufficiently above the characteristics of the walls of the ampullæ. That as soon as they begin the endothelial cells of the artery become spindle-shaped and are separated, and that a distinct cell wall cannot be followed to the vein. Furthermore any fluid injected into the artery will invariably pass immediately over into the pulp, thus causing an artificial œdema. When this is complete the fluid then flows from the veins. The extent of this œdema in the spleen under normal conditions would depend upon the tone of the muscles of the trabeculæ. It does not appear that the natural elasticity of the reticulum of the pulp and of the elastic tissue of the trabeculæ and capsule are sufficient to prevent this, as shown by artificial circulation through the isolated spleen as well as by producing paralysis of the muscle in the living animal by cutting the splenic nerves.

Long-continued circulation with cinnabar granules suspended in gelatin through the isolated spleen shows that the bulk of the granules pass directly into the vein while a considerable number of them enter the pulp spaces. When such an injection is continued long enough the granules passing into the pulp will naturally accumulate, as does the blood when the nerves are cut. The few red discs which normally pass out into the tissues will probably remain there until destroyed by the various migrating cells, then to be carried into the veins by them. Sections of a spleen which has been distended with gelatin, as well as the relative number of red and white blood discs within the vein under normal conditions, suggest this. Furthermore, the veins have the largest openings in their walls nearest the lymph follicles.

Numerous experiments, made by Welch and myself, upon the blood-vessels of the intestine have shown that hemorrhagic infarction takes place only with considerable blood pressure within the arteries and capillaries. When the vein only is tied or when the venous pressure is greatly increased, with the artery closed, the expulsion of red discs through the thin capillary walls is easily understood. When, however, the artery is tied and the vein left open, as is the case when an embolus lodges in the superior mesenteric artery, the cause of the following diapedesis throughout the mucosa of the intestine is not easily understood. Many experiments have shown that it is not necrosis of the capillary walls and venous regurgitation, for after the whole intestine has been deprived of its circulation for twenty-four hours, re-establishing it does not produce an infarction nor hasten it. An infarction of the intestine takes place after ligature of the superior mesenteric artery just as rapidly with the mesenteric vein cut open as it does under the normal portal pressure of 7 mm. Hg.

All the usual explanations of hemorrhagic infarction, as printed in the pathologies, are incorrect when applied to the intestine. The superior mesenteric artery with its branches suspended in a membrane is eminently adapted to experiments to test this question. The pressure in the vessels can be increased and gradually modified in different portions of the intestine, and it is found that when the arterial pressure is reduced to one-third its normal with the vein either intact or cut open, an infarction invariably follows. Cutting off all the anastomoses and partly closing the main artery with clamps until the pressure in the distal end is about 40 mm. Hg. produce an infarction. It does not appear, however, that the infarction is due to the reduction of the arterial pressure to 40 mm. Hg., but rather to the lack of a pulse wave, which is almost completely cut off at this pressure.

The experiments of von Frey [13] with artificial circulation through isolated organs have shown that the lack of a pulse wave in the artery always causes them to clog with red blood discs, while the presence of a pulse prevents this by not permitting the red discs to stick together, for it constantly tears them apart. When they stick together they gradually block the capillaries, and then the lateral (lymphatic) circulation drags with it the straggling red discs, thus choking up the tissue to produce hemorrhagic infarction. The result obtained by von Frey in an isolated organ in which artificial circulation is carried on without a pulse wave has also been found in the living intestine when the artery is closed sufficiently to break the pulse in its distal end. The infarction produced by long-continued circulation through the artery under constant pressure is due to a condition which blocks the capillaries, but still leaves the blood within them under considerable pressure. The important factor is stagnation, due to the absence of a pulse in case the artery is tied, while if the stagnation is produced by ligating the vein the presence of a pulse only hastens the infarction. In one case there is a pulse, in the other there is not, while in both the result is the same.

I have given then a brief summary of some unpublished work in order to discuss the infarction within the spleen following division of the nerves. The great sectional area of the ampullæ as well as the great number of them (at least five hundred million), together with the long, slender arteries, must cut down the pulse in the ampullæ enormously. Hence with the normal circulation through the spleen we have present most favorable conditions for diapedesis. Not only is the circulation slow and the pulse wave insignificant, but the walls of the ampullæ (capillaries) are incomplete. So, therefore, without the rhythmic contraction of the spleen to aid the circulation a hemorrhagic infarction takes place. The quantity of discs which normally passes from the ampullæ into the pulp spaces is increased while a share of the blood still passes over into the veins, just as is the case in the intestine when infarction is taking place after ligature of the superior mesenteric artery. With the spleen pulse present, however, the constant pressure upon the pulp produced by the elasticity of the connective tissues and the tone of the muscle are sufficient to drive the blood discs through the channels of the least resistance, as is the case when a distended spleen is injected (Fig. 4467).

The balance between the arterial pulse, ampullæ, and spleen pulse is so delicate that when it is proper the blood discs will "creep single file" over into the vein, while the least overthrow of it will drag an increased number of corpuscles with the normal flow of plasma over into the pulp spaces to make a pathological condition—hemorrhagic infarction.

The Nerves of the Spleen.—The nerves of the spleen accompany the artery and are composed mostly of non-medullated fibres.[14] It is quite easy to separate them by the ordinary methods of dissection and to follow them far into the spleen. With the aid of the dissecting microscope Kölliker was able to follow them to the Malpighian corpuscles, while with the aid of Golgi's method Retzius followed them to their terminations in the spleen substance. Rich plexuses of fine nerves surround all of the arteries which supply the muscle fibres of the media. A second group of nerves go to the muscle fibres of the trabeculæ. This distribution explains the physiological experiments: (1) Irritation of the splenic artery causes contraction of the whole spleen; and (2) cutting these nerves causes paralysis of these muscles followed by hyperæmia and hemorrhagic infarction. According to Kölliker the presence of some medullated nerve fibres in the spleen accounts for the pain felt in this organ at times. It is impossible to determine with certainty by the method of Golgi whether or not the nerve fibres leave the trabeculæ and walls of the arteries to enter the substance of the pulp, for the precipitation of the silver often outlines the reticulum fibrils also.

The Spleen Pulp.—The red substance of the spleen, the true spleen pulp, is arranged in bands which anastomose in all planes, inasmuch as it fills all of the space between the capillary veins, similar to the arrangement between the cells and capillaries of the liver. The framework of the pulp is composed of reticulum, the nature of which has been already discussed. There appear to be some elastic fibres encircling the veins, and also within the Malpighian corpuscles, as is the case in all lymph glands.

The small mononuclear lymphocytes, which form the main mass of the Malpighian corpuscles, are found scattered throughout the pulp substance, except along the arteries, where they form a kind of a sheath to the outside of the muscle wall.

The large leucocytes are in general more numerous, and they are also numerous in the centres of Malpighian corpuscles. They are partly unicellular and partly multicellular, and in addition there are granular forms, some of which are intensely stained with eosin (eosinophile cells). The large brown cells (phagocytes) which contain much blood pigment must also be recorded with the leucocytes. They are found scattered in an irregular fashion throughout the pulp of the spleen. The contents of the phagocytes are also found free in the pulp. Red blood corpuscles lie scattered singly and in groups within the meshes of the reticulum of the pulp. As a rule giant cells and nucleated red blood cells are not found in the pulp of the adult spleen, but there are cells present which cannot for the present be arranged with certainty in the series of leucocytes or the series of erythrocytes. These cells are pretty large and have a very fine granular protoplasm which stains more intensely with eosin than does the protoplasm of leucocytes. The nucleus is round or oval, seldom constricted, and never lobulated, and often contains marked nucleoli. In preparations made from tissue hardened in sublimate the nuclei of these cells resemble those of the reticulum, but unlike them lie free within its meshes. Large giant cells, similar to those in bone marrow and in the liver of the embryo, are also found. Their nuclei are large and lobulated or are pressed together into a heap. In order to differentiate them from the giant cells with many nuclei they are called megacarocytes. It has been found by Kölliker that they are present in the spleen of embryos and of young animals and occasionally in the spleen of the adult —the mouse for instance. There are also constantly present in the spleen of young animals very small granules which can be found in very large numbers in teased preparations. They resemble very much blood platelets, but are more resistant, for they can be preserved for a very long time in salt solution. They also have a tendency to take on irregular shapes and to form clumps.

The question is naturally asked, Is the spleen a blood-producing organ? The more the question is studied the less probable it becomes that the spleen plays any rôle in the production of blood. The coarse counts of the number of white and red cells in the artery and in the vein or the increased number of white cells in leucocythæmia are of little value when examined critically and experimentally. According to Ehrlich,[15] to whom we owe much regarding our knowledge of the blood, the leucocytes are greatly increased in number after extirpation of the spleen, which is accompanied with a marked hypertrophy of the lymph glands of the body. Extensive experiments were carried on in Ehrlich's laboratory by Kurloff, from which the following conclusion is drawn: That the spleen of the guinea-pig plays an insignificant rôle in the formation of the white blood corpuscles.

It is also very apparent that the relation of the spleen to the formation of red blood corpuscles varies much in different animals and at different periods in the development of the same animal. In lower vertebrates the spleen is a great factor in the production of red blood corpuscles. In mammals, however, it generally plays no rôle whatever in their production. Nucleated red corpuscles are found in relatively large numbers in the mouse's spleen; in smaller number in the spleen of the rabbit; in that of the dog during the anæmia following hemorrhage; and in the human spleen only during leukæmia.

It appears as if the spleen of higher animals is a place for the destruction of blood corpuscles, especially those which have been partly destroyed. So Ponfick has found that in the destruction of red corpuscles the spleen takes up a part of the "shadows" of the red cells and produces a spleen tumor, and Ehrlich has found that the enlarged spleen in many infectious diseases is produced by the products of disintegrated leucocytes which are there accumulated.

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SPLEEN, DISEASES OF THE.—General Considerations.—Developmentally, the spleen belongs to the mesoblastic tissues. It is derived from the mesogastrium, and in its origin is closely related to the pancreas, but has none of the hypoblastic elements which enter into the formation of the latter. It first appears during the second month of fœtal life and develops slowly, so that it is not complete until nearly the end of that period.

Structurally, and, as will be seen later, to some extent physiologically, the spleen is closely allied to the lymphatic nodes or glands. The framework of the spleen is connective tissue, which is massed especially in the capsule, giving the general form of the organ; in the trabeculæ, which are processes running from the capsule into the substance of the viscus, and dividing it into smaller parts; and, finally, in a fine meshwork which fills these parts and divides them into minute spaces, the so-called pulp spaces of the organ. Connected with this fine connective-tissue meshwork are many stellate branching cells. The walls of the pulp spaces are lined with small or large endothelial cells. In the meshes of the connective tissue framework, that is in the pulp spaces, are great numbers of small round cells or lymphocytes. The blood supply is the splenic artery, whose main divisions run along the trabeculæ of the organ, then, subdividing into smaller branches, pass into the so-called pulp. Upon the walls of, or around, the smaller arterioles are clustered here and there masses of lymphoid cells which constitute the Malpighian bodies of the spleen. These bodies correspond in a general way with the lymph follicles of the lymph nodes, and the pulp spaces of the spleen correspond to the lymph sinuses of the nodes. The pulp spaces constitute the beginnings of the venous radicles of the organ, which gather up the blood to pass it on to the splenic vein. The nerves of the organ are derived from the cœliac plexus and the right vagus, and to some extent they accompany the branches of the splenic artery.

The size and weight of the spleen vary considerably even in conditions of health. During the first year of life it weighs from 15 to 20 gm., in adult life from 140 to 200 gm.

Anatomically the spleen stands in close contact with the stomach, and the blood supplies of the two are closely related. In some of its functions also it is associated with the stomach and liver. It is therefore not uncommon to find it classified as belonging to the digestive system.

From what has already been said with regard to the structure of the spleen, its close kinship to the lymphatic apparatus, and its anatomical relations to the digestive organs, we may expect that it will but rarely become the seat of primary disease, but that it will participate largely in systemic disorders and in local disturbances, especially those involving obstruction to the circulation in the portal system. In fact, apart from the extremely rare cases of primary malignant disease of the spleen, there are but two affections in which it appears to play the primary or chief rôle. These are the splenic form of leukæmia, and the disease or group of diseases which has lately been designated as splenic anæmia. It is, however, still an open question whether in either of these the rôle of the spleen is primary. We can only say that in some at least of the cases included in these categories such seems to be the case.

Abnormalities.—Absence of the spleen is met with in some cases of acephalic monsters and in premature fœtuses with imperfect development of the skull. Litten records two cases in which no spleen could be found in bodies otherwise perfect, but as one of them dates back to the sixteenth century, the condition must be an exceedingly rare one. Supernumerary spleens, on the other hand, are extremely common, being found in about one body in four. In number they vary from one or two up to forty. They are found near the hilus of the spleen, in the gastrosplenic omentum, in the great omentum, and even in the pancreas. In size they are usually small, 0.5 to 1 cm. in diameter, but they may reach considerable proportions. The absence of the usual symptoms after splenectomy in some instances has been explained on the basis of the presence of supernumerary organs.

A recent study by Parsons shows that there is great variation as to the number and arrangement of the notches and fissures of the spleen. On the anterior border he found that some spleens had no notch, while, when they were present, they varied from one to eight in number. About one-third of the specimens examined showed notches on the posterior border and one-fifth had fissures on the parietal surface.

Abnormal Placement.—Congenital abnormalities in the position of the spleen are observed in rare instances. The most interesting of these is the placement of the spleen in the right hypochondrium in cases of transposition of the viscera. The spleen may be found outside the usual limits of the abdomen in cases of large umbilical hernia, and has even been found in the left thorax in connection with defect of the diaphragm. Von Löwenwald records a case in which the spleen was found attached upon the spinal column.

Movable or Wandering Spleen.—The spleen is normally in position in the left hypochondrium, touching the ninth, tenth, and eleventh ribs, its long axis almost in the line of direction of the tenth rib, its upper and posterior end being about 2 cm. from the vertebral column and its anterior and lower extremity being about 3 cm. from the margin of the ribs in front. It is suspended by several folds of peritoneum, one passing from the greater curvature of the stomach to the hilus, another from the upper end of the spleen to the diaphragm, and a third from the diaphragm to the splenic flexure of the colon. The last of these suspends the spleen as in a sling and is its chief support.

The normal spleen enjoys a certain amount of mobility and may be depressed from above by effusions in the left thorax, emphysema, etc., or may be displaced upward by fluid in the abdomen or by distention of the colon with gas or fæces. In the condition of movable or wandering spleen, however, all the suspensory ligaments are lengthened or relaxed and the spleen is displaced downward into either the abdomen or the pelvis.

Etiology.—The condition may be one of the features of a general splanchnoptosis produced by trauma, such as sudden falls, or by lifting heavy weights, but is most commonly a result of the persistent dragging of an enlarged and heavy spleen upon its attachments, especially likely to be seen in such affections as malaria, leukæmia, or splenic anæmia.

Morbid Anatomy.—The spleen itself may present any one of the various types of chronic enlargement, or in rare instances it may be normal. The ligaments are all stretched, and with them the splenic artery and vein. The latter may be dilated to enormous size. The tail of the pancreas and the greater curvature of the stomach are dragged down with the spleen and deformity or dilatation of the latter organ may result. The pedicle of the spleen may become twisted upon itself with secondary atrophy of the organ, or even, in case of complete obstruction of the circulation, with gangrene.

Symptoms.—There may be no symptoms whatever, and the displaced viscus may be discovered by accident. There may be pain due to the weight and pressure of the spleen in an abnormal location, or dragging pain due to the stretching of the ligaments. In many instances the patients are neurasthenics and present characteristic symptoms of that disorder.

Diagnosis.—This rests upon two points: First, the recognition of a solid tumor in the abdomen or pelvis as the spleen; and, secondly, the demonstration of the absence of the spleen from its normal situation. The first is usually easy, if the possibility be present to the mind, the smooth, hard, rounded external surface, the sharp anterior border with its notch or notches, and the rounded ends being characteristic. The second point depends upon the absence of splenic dulness in the left hypochondrium. Litten suggests the observation of the colon when distended with fluid, and then again evacuated as an aid to diagnosis, but this is not usually required.

Treatment.—An abdominal bandage or binder may be sufficient to retain the spleen in its normal place; if not, operative measures are called for. A number of instances are on record of successful suturing of the spleen in its proper bed, but splenectomy seems to be the preferable operation.

Acute Hyperplasia of the Spleen; Acute Splenic Tumor; Acute Splenitis.—*Etiology.*—In all the acute