

bulging of the antrum and upward displacement of the eye, the slight amount of pain, together with the history and previous treatment led to a diagnosis of sarcoma of rapid growth. I gave the patient an unfavorable prognosis and urged a speedy removal of the upper jaw, which was done. When the soft parts were laid back the disease was found to be very extensive, requiring removal of the whole superior maxilla and malar bones, the zygoma and part of the temporal and masseter muscles. Hemorrhage was very severe, but was controlled by iodoform packing and tincture benzoin comp. In spite of this bold and severe operation the disease recurred and the patient died from exhaustion.

The microscope showed the tumor to be a small round-celled sarcoma.

Melanotic sarcoma of the neck (Fig. 9).—This specimen is from the neck of a woman 29 years old. It was situated at the angle of the jaw on the right side. The history is, briefly, that she had a dark brown pigmented mole in the above location, which annoyed her so much that she frequently "picked" it. About one year ago the mole seemed to be growing larger, but the patient was not alarmed until four months ago, when it commenced to increase in size very rapidly, to look inflamed, and to cause much shooting pain. Upon advice, the patient had the growth removed, which was done through an elliptic incision on each side at least one inch distant from the periphery of the growth.

As is well-known, pathologists are undecided as to whether this is a sarcoma or a carcinoma, though undoubtedly we possess both varieties. Sections were made in celloidin, paraffin and by freezing, the two last-named giving the best results. The majority of the sections show the tissue cellular in type, of mixed sizes and shapes, some with and some without pigment granules in the protoplasm, separated from each other by a variable amount of intercellular substance showing in some places a distinct fibrillation. In some places the pigment cells seem to invade the epidermis, as though the epithelium might be implicated in the growth, which layer is in connection with the cellular elements, and then further gives way for the usual normal subcutaneous connective tissue layer. The epithelium is not seen to be taking part in any of the growth, but here and there masses of sebaceous epithelium can be seen. The chief peculiarity of the growth is its superficial location and extent in a lateral direction.

The origin of the pigment is indefinite, the origin from blood being affirmed by Dressler, Kolaczek and Rindfleisch, and denied by others. Pigmented sarcoma cells do not fibrillate, which fact explains the great malignancy of melanotic sarcoma. The fibroplastic part of such growths is always made up of spindle cells which are not pigmented (Senn).

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SOME LITTLE POINTS IN SURGERY.

Read by request at the Twenty-sixth Annual meeting of the Southwestern Kentucky Medical Association, May 11 and 12, 1897, at Paducah, Ky.

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In preparing this paper I have endeavored to make use only of such points and suggestions as have come up before me in my every-day practice, and which I believe, are of daily thought and study to every surgeon who is actually engaged in relieving the suffering of humanity.

I am quite sure you will all agree with me that the little points in the practice of our profession are of pre-eminent importance. Of themselves, they are able to make or mar our success, according to our attention to or neglect of them.

In an injury to the head we must take into consideration every minute point, weigh each well and pro-

ceed as our best judgment dictates. If we suspect fracture of the skull we should examine the ears, and if a discharge is present, its nature should be noted, for on this—whether it be blood, the cerebro-spinal fluid or a mixture of them—will depend our diagnosis and prognosis to a large extent. The pharyngeal space and posterior nares should not be overlooked, and lastly, every surgeon should be conversant with the use of the ophthalmoscope and be able, roughly, to determine some of the more commonly occurring pathologic conditions of the fundus of the eye, such as choked disk, neuritis, hemorrhage, detachment of retina, and albuminuric retinitis, which conditions are liable to occur in cerebral apoplexy, meningitis, brain tumors, Bright's disease, and injuries to the head.

In all injuries about the body the positive, brilliant diagnosis is made by considering every little point; for example a man has been crushed between two heavy bodies and the head of the femur is thought to be involved. Everything that bears upon the question must be fully considered, and it will be found that the simple, plain little points will reveal the certain diagnosis. The position of the limb here, as in almost all fractures of the long bones, will indicate to the experienced surgeon, almost at a glance, just what the condition is. Yet it is well to fully corroborate the testimony of the eyesight with every means of evidence available. The result will then be safe.

In compound fractures a little point of importance is to make the right traction so as to fully reduce the fracture and yet produce as little secondary injury to the parts as possible, especially to the nerves and blood vessels. More than once I have hooked my little finger, rendered as thoroughly aseptic as possible, between the bones and soft tissues and used just enough traction to push the fractured end of the bone back into its original position. Again, it is a nice little point to know just how to cleanse and remove all débris from the wound. I always carry, both in my dressing and my surgical case proper, some fine rubber tubing. This can be made quite aseptic in a few minutes and an extemporaneous syphon made in as short a time. A sterile, neutral, alkaline or antiseptic solution can be prepared while the injured parts are being uncovered. I then apply to the wound my rubber tubing syphon, in one end of which a glass nozzle is fitted, in such a way that the inflow of water will drive out and not wash in the foreign material. In applying dressings it is a nice little point which comes only with practice to know just how snugly to draw them so as not only to hold the parts in position but give the patient perfect rest without pain. When the injury to the limb is below the middle third it is a good plan to pad the distal end well and begin the application of the bandage close to the extremity, bandaging somewhat firmly here, and as the bandage goes nearer and nearer to the wound making it slacker and slacker until the injured tissue is reached, when the bandage ought to be drawn only snug enough to simply hold the dressings firmly in place. I think the tendency is to apply too much dressing to stumps after amputations, and to extensive injury of soft tissues. I apply just as little as is consistent with the requirements of the case. When the patient is at home, with good atmosphere and sanitary surroundings, I am still more careful to apply as little dressing as possible.

In compound comminuted fractures the question is how many of the small fragments of bone to remove and how many or what to leave. It is good practice after having thoroughly cleansed the site of injury, to leave the cancellous pieces near uninjured cancellous bone, and to leave in place all peripheral portions which are attached to the periosteum, and thus if possible make the contour of the bone almost if not quite normal. One of the recognized procedures of modern surgery, when we have an extensive wound, be it operative or from accident, is to cleanse it with some substance that is as non-irritating as possible. The strong irritative solution of mercury bichlorid of the earlier practice in aseptic and antiseptic surgery is practically a thing of the past. For a thoroughly reliable antiseptic solution for irrigating wounds which are infected, I am in the habit of using 2 c.c. each of carbolic acid and tincture of iodine to a liter of sterilized water; I then rewash with sterilized water. Simple sterilized water, or sterilized normal saline solution makes an ideal cleansing fluid when we have no reason to suspect infection. For a dry dressing I use sodium chlorid and starch, in proportion of 1 to 4.

When called upon to go hastily to some remote house where an operation of some kind is found imperative, alone and partially unprepared, I usually proceed in the following manner: While my instruments are boiling in a soda solution on the kitchen stove, I prepare the patient. I then appoint three nurses if they can be obtained in the house or from the neighbors. One I assign to the anesthetic; the other two I make head-nurse and assistant, respectively. I then clean my hands, nails and arms, and instruct both nurses to do the same in every detail. I then say to them, "Do not touch anything with your hands or arms except as I direct." I then prepare my needles, dressings and instruments, placing all in a place convenient for picking up as needed; the assistant nurse handles the boxes, the jars and the pans only; the head-nurse may, if necessary, thread needles, cut gauze into convenient strips for sponges and assist me generally; I then put the patient under chloroform, give the inhaler to the nurse I have appointed for this duty, sterilize my hands again and then proceed with the operation.

In repairing the soft tissues, like structure should be brought into apposition with like, severed tendon to tendon, nerve end to nerve end, etc. To do this thoroughly, neatly and well, without too great tension, requires not only a delicate touch, but a firm, steady hand which experience alone will bring. To my young friends who are just entering the field of surgery I would say, "Perform operations on the cadaver, on the dog, the rabbit, anything you can get hold of. Do all kinds of work again and again until you feel that you are master of the situation, then when called upon to care for some unfortunate human being, you can enter the room of the injured or afflicted one with a confidence born of the certainty of success."

Do not use too heavy ligatures nor too large sutures. I wish to urge this very strongly. In my opinion the experienced surgeon can ligate vessels with a comparatively fine silk thread without running the slightest risk of cutting through the vessel; then with a well and neatly tied knot he can cut the ends quite close; and so too in tying off stumps. The point I wish to bring out is that the smaller the foreign substance which we leave in a wound or cavity the less liable

we are to have trouble and irritation. In suturing an external wound it is well to remember that all knots should be tied upon one side or other of the incision. If a knot happens to be tied directly over the incision it can as a rule be easily slipped over to one side. The reasons for this arrangement are two. If the knot is left immediately over the incision or cut surface, the ends may dip down between the edges and so prevent primary union. Again, when we come to remove the stitch we can catch the knot with a pair of fine toothed forceps and, with blunt pointed scissors, depress the integument at the stitch hole sufficiently to cut off the suture at some distance below the surface; then making traction on the knot in a direction away from the newly united edges the shortest possible amount of thread is drawn through, saving the patient pain and preventing infection by carrying some of the external part of the suture through the tissue. When placing stitches in a wound or incised surface, great care should be taken not to injure any deep lying nerves or vessels or any organ adjacent thereto by passing the needle too wide or too deep.

When proceeding with an operation, and this applies especially where the blood vessels are numerous and tortuous, for instance about the face, neck, chest and extremities, it is well to have a qualified assistant to compress the important vessels leading to the field of operation. This materially aids in shortening the operation and helps the operator do neater and better work. All vessels from which hemorrhage has occurred should be secured before entering any cavity beyond. I emphasize this point by stating a case of my own, that of a boy suffering from diphtheritic obstruction of the larynx. This case I ultimately lost with a septic pneumonia when a little more care in securing the vessels might possibly have saved his life. The abdominal surgeon realizes the importance of securing all vessels before he enters the peritoneal cavity. The genito-urinary surgeon is careful, when passing through the perineum, to check all bleeding points with ligature, or catch forceps, or to at least thoroughly pack the site of the wound so as to completely control all hemorrhage in this region before entering the bladder. In the operation of perineal lithotomy there is a little point that is well to bear in mind, viz., when the sound is in the bladder, and the incision into the bladder has been completed, it will be very embarrassing to the surgeon to accidentally or intentionally remove both sound and forceps before the calculus has been grasped. It is a very difficult thing to reintroduce them. I would advocate more general blood letting for cerebral apoplexy; for mastoiditis early incision and exploration if necessary; for cellulitis early and multiple incisions. After operations give as little anodyne as possible, none at all is better. Here codein is preferable to morphin, on account of its less depressing, less constipating after-effects. If morphin must be given it is preferable to use the hypodermic syringe. For the pain after an operation involving the brain, give bromids. For abdominal pain after laparotomy give teaspoonful doses of hot water and apply hot water to the abdomen, where it can be done without infecting or wetting the wound. Be careful to prevent vomiting after abdominal incision. This may be done by cocaine spray to the nares, by laying a cloth wet with vinegar over the face, or by counter irritation over epigastric regions, etc. The pain, after bladder operations, may

be relieved by rectal injections of hot water, or when severe, by a suppository of opium; the same for pain following rectal operations, when not extensive. For preventing the extreme thirst following abdominal operations, it is a good plan three or four days before the operation to commence having the patient drink large quantities of water. In this way you will get rid of much of the thirst which is so intolerable after an extensive operation. There are points all along the road of surgery. Last, but not least, let me try to make a little point on thorough preparation, even in the smallest operations. When opening the smallest abscess, when removing a foreign body however minute, when introducing an instrument of any kind into a wound or into any of the natural cavities or orifices of the body, remember in all cases, to have your hands and instruments surgically clean; look well to the field of operation, see that it is as thoroughly prepared as though you were going to do a capital operation, for more than once you and I have seen disastrous results from not being careful enough.

A MODIFICATION OF THE MURPHY BUTTON.

BY ARTHUR E. HERTZLER, A.M., M.D.

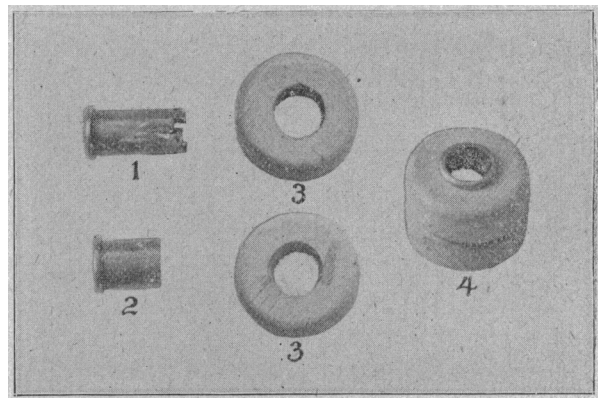
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The time required to suture the ends of the intestines, and the necessity of pushing in the suture threads after tying the plates, and the uncertainty of an adequate opening, in the use of the decalcified bone plates of Professor Senn; the large size of the body to be extruded, the danger of lodgment and the occasional undue pressure of the spring, in the Murphy button; the time required to make a union by the Czerny-Lembert suture, seem a sufficient apology for continued investigation in the perfecting of a method for uniting the various parts of a digestive tract in case of disease or injury. That many advances along this line have been made is evident, and it is equally obvious that there is still room for improvement. It is with the hope of contributing to this advancement that this modification of existing methods is offered.

The present combination is the result of an attempt to unite the decalcified plates of Senn without the use of sutures. After using various devices, an exploded pistol shell was used. Little strips, two millimeters wide, were cut down the sides and bent outward to form hooks to catch in threads in the female part of the button, as in the Murphy button. The regular lock of the Murphy button was also used, but this locks only about every one-thirty-fifth of an inch, which was not sufficient. I used thirty-two caliber for cats, thirty-eight for small dogs and forty-five caliber for large dogs, in lateral anastomoses and colectomies. Four catches, instead of two, were used on the male portion of the lock, the two opposite acting together. This gives a firm lock and at the same time allows it to fasten every one-seventieth of an inch with a thread of one-thirty-fifth of an inch in the female portion of the lock. This allows accurate coaptation and does away with the necessity of a spring plate, as used in the Murphy button. At first a spring was used. A coil spring was placed between the head of the tube and a shoulder in the disc made to receive it. I found, however, that this is entirely unnecessary, as the slight elasticity of the disc is all that is needed.

Plates of fresh bone of from six to seven millimeters thick are cut into circles a little less in diameter than the gut it is intended to unite. Holes are now drilled just large enough to admit the central tubes. These are made larger and of lighter weight than the central tubes of the Murphy button of the same diameter. The inner side is now reamed out about the central opening for the puckered part of the gut to lie in after the draw suture has been tightened. All edges are now rounded, the discs decalcified and dried between filter paper, under pressure, then hardened in alcohol.

I have made more than a hundred experiments to determine the length of time necessary to decalcify, but the results are still not entirely constant. One difficulty that can never be entirely overcome is the fact that the various conditions of the digestive tract affects the rapidity with which the bone will be absorbed. Still, the results may be stated in a general way. For use in the intestines the discs should be decalcified for four days in a 10 per cent. solution of HCl of twenty-five times the volume of the discs, and changed but once at the end of forty-eight hours. After decalcification is complete the discs should be dried for twenty-four to forty-eight hours between several layers of filter paper, under pressure, and then hardened in alcohol of ascending strength, as in



1. Male portion, showing four catches which are adjusted to work in pairs. 2. Female portion, containing thirty-six threads to the inch on its inner surface. 3. The two decalcified plates separate from the metallic portion. 4. The button closed, showing how the central tubes slip into the plates and then shove together, like the Murphy button.

hardening tissue for the microtome. After hardening they may be kept in alcohol indefinitely. They have no tendency to warp, and are sufficiently firm for the purpose. A disc thus prepared will require about from 3 to 5 days time for absorption enough to take place to release the central tube. Discs intended for use in the stomach should be decalcified for twenty-four to thirty-six hours only, in fluid of the above strength, without change, and then dried and hardened as above described. Such a disc will absorb in from seventy-two to eighty hours. If the animal is given food absorption is hastened, while opium retards the process.

I have tried ivory and, while it is more easily worked, the time required for its absorption is not so constant, and is on the whole less desirable than bone.

Besides the usual rules observed in this class of operations the following points are suggested:

1. In end to end anastomosis the draw stitches should be regularly placed and should not include too much tissue, two millimeters is enough.

2. In gastro-enterostomy a circular patch of tissue,