

OUR PRIZE COMPETITION.

IN WHAT COMMON CONDITIONS MAY ASCITES DEVELOP? HOW WOULD YOU PREPARE A PATIENT FOR PARACEUTESIS ABDOMINIS?

We have pleasure in awarding the prize this month to Miss Winifred Moss, the Royal Infirmary, Leicester.

PRIZE PAPER.

Ascites, Hydroperitoneum, or the accumulation of serous fluid in the peritoneal cavity may be due to either general or local causes. The local causes include chronic inflammation of the peritoneum which may be either simple, tuberculous or cancerous. There is great thickening of the peritoneal layers and the effusion may be moderate or extensive, with formation of adhesions which render operation inadvisable, as additional ones would be produced. Tapping should be done whenever possible.

Portal obstruction in the terminal branches within the liver, as in cirrhosis of the liver, or in syphilis, is another local cause. A most extreme degree of portal cirrhosis may exist without symptoms of ascites. So long as the compensatory circulation is kept up, the patient may suffer little or no inconvenience and ascites may not occur. Directly this compensatory circulation fails the effusion of serous fluid into the peritoneum occurs suddenly. The abdomen distends and may reach a large size, and contain from G_{xx} - G_{iii} of fluid.

Tumours of the abdomen may cause an extensive ascites, solid growths of the ovaries, for an example, tend to cause this, which may mask the true condition.

The more common causes of ascites, however, are the general causes. It may be part of a general dropsy, the result of mechanical effects, as in heart disease, or in this condition also the accumulation of fluid may be confined to the abdomen owing to the secondary changes taking place in the liver. Ascites is also a symptom of acute and chronic kidney disease.

In heart disease if one of the valves is diseased or is prevented by dilatation of the heart, from closing the opening it guards, some blood flows backwards as well as forwards when the heart contracts. As a result of this regurgitation, or backward flow of blood, it meets and obstructs that blood which is entering the heart from the great veins, the inferior and superior venæ cavæ. This causes venous engorgement and a great slowing down of the current throughout the whole venous system. The veins and lymphatics drain away from the tissues the fluid which is constantly oozing into them from the capillaries, and if these veins are blocked, an excess of fluid will remain in the tissues. The resulting swelling is called œdema. It usually starts at the dependent parts such as the ankles, and may go on to ascites, and anasarca or generalised œdema affecting the subcutaneous tissue of the whole body.

Ascites may also develop in severe cases of nephritis, that is acute nephritis and also in chronic parenchymatous nephritis, in which persistent and increasing dropsy is the most obvious symptom.

In this case the presence of the excess fluid is due, to a considerable extent, to the fact that the diseased and damaged kidneys are excreting less than the normal amount of salts. These instead of being excreted, or got

rid of, in the normal way tend to accumulate in the tissues. Since these salts must remain in solution, the tissues will draw water from the blood to dilute them. The result of this is that the tissue spaces become water logged. A salt free diet will help to relieve this condition no salt being allowed to the patient with his food. All food should be prepared without the addition of salt. The excess of salts are then withdrawn from the tissues and the œdema tends to lessen. Protein may also be given in large amounts as this œdema seems to be dependent upon the marked decrease in the albumin content of the blood, consequent upon a persistent loss of this substance in the urine.

Tapping may be necessary for severe cases.

Abdominal paraceutesis may be done for therapeutic purposes, to relieve the pressure and to make the patient more comfortable and also for diagnostic purposes. The site usually chosen is a point midway between the umbilicus and the symphysis pubis, strictly in the middle line to avoid any blood vessels. As the bladder lies in this region when it is full, it is most important to see that it is emptied, if necessary with a catheter, before the puncture is made. Shaving may be required. A sudden removal of a large quantity of fluid from the peritoneal cavity will cause a decrease in the extra abdominal pressure, and may cause collapse of the patient. The abdominal wall will have been very much stretched by the accumulation of fluid and it will take time for the structures to adapt themselves to the new position, when the fluid has been removed. A strong binder should be placed round the patient and tightened as the fluid is withdrawn, and stimulants should be at hand. The patient should be propped up comfortably in bed in Fowler's position and the apparatus prepared with all aseptic precautions.

Southey's apparatus consisting of a very fine trocar and canula, provided with a plate and very narrow rubber tubing is commonly used. The site of the puncture is sterilised and anæsthetised and the canula introduced with the aid of a trocar and the plate fixed with strapping. A dressing is applied and the fluid flows through the tubing into a pail filled with a measured quantity of antiseptic or sterile water, prepared for it. Brandy or some stimulant should be at hand in case it is needed and water for the patient to drink. The procedure should be explained to the patient beforehand if possible, and her co-operation obtained in this way. Careful watch should be kept on the binder, it being tightened and the dressing renewed if necessary. This treatment may have to be repeated frequently.

HONOURABLE MENTION.

Miss Florence Ibbetson, Essex County Hospital, Colchester, receives honourable mention for an excellent paper.

Miss Ibbetson devotes a useful paragraph to the fitting of the trolley in preparation for the operation of paraceutesis abdominis.

QUESTION FOR NEXT MONTH.

How would you prepare a patient for the operation of partial thyroidectomy? Describe the post-operative nursing treatment and mention any complications that may occur.

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