

in the rat (Reiss, MacLeod, and Golla, 1943) have shown that corticotrophic hormone, by mobilizing an endogenous supply of adrenal cortical hormones, can similarly influence the capillary permeability and effectively prevent the loss of blood fluid.

The haematocrit alone can give a differential diagnosis of the state and fate of the fluid components of the blood.

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Medical Memoranda

An Unusual Amoebic Liver Abscess

It is common knowledge that the metastatic liver infection produced by the *Entamoeba histolytica* proceeds in many cases from hepatitis to suppuration. The resultant abscess must always be thought of as the "cold" variety and be treated with as much circumspection as are those due to the *Mycobacterium tuberculosis*. This lesion progresses, and seeks to establish an outlet whose track may lead into any structure which is in immediate anatomical relation to the liver. Adhesions will form in practically every case, and so prevent general contamination of a serous cavity.

Many years of observation have shown that the amoebic liver abscess is usually solitary and large, and is situated in the right lobe. Again, in the case of the female, liver abscess is relatively uncommon. Rogers observed nearly 400 cases of liver abscess in Calcutta, 97% being in males, and quotes Ludlow's series of 240 cases in Korea, of which 90% were in males; while Manson-Bahr states that European women in the Tropics rarely develop the condition. The undermentioned case presented several uncommon features, in addition to the fact that the abscess occurred in the left lobe and in a female.

CASE NOTES

On Dec. 28, 1939, I was asked to see a parous Hindu, aged about 30, who complained of weakness, fever, general abdominal discomfort, and anorexia. The symptoms came on gradually, without rigors, and were associated with some loss of weight of only twelve days' duration. The fever was at first remittent, and quinine had been given for thirteen days, but without result.

Examination showed a fairly well nourished woman, and the following signs were recorded: coated tongue; no abnormal glands; chest, heart, and C.N.S. normal. The abdomen was held in a tense manner, but a mass filled its upper half, and it was dull to percussion, though not very tender. Rectal examination and urine analysis were normal. Blood serum for agglutination contained *B. typhosus* 1:1280, but the Vi agglutination test gave a negative reading.

Stools showed no abnormality on gross examination. On the 15th day of fever the temperature became intermittent. Re-examination revealed that the liver edge was at the level of the navel, and that another mass in the upper abdomen came from behind the costal margin and extended two inches below the navel. There was a notch at the junction of this mass with the liver. It felt like an enlarged spleen, but subsequent signs showed it to be an enormous left lobe of the liver. No shifting dullness was found, nor was the mass very tender. On the 15th day the blood showed 15,000 white cells per c.mm., with 84% polymorphs. Stools were repeatedly negative for ova, cysts, and amoebae. A course of 10½ gr. of emetine hydrochloride injections was given over a period of 15 days and the temperature became normal, but only for the first three days. On the 19th day signs appeared at the right base—viz., dullness, absent breath sounds, and inspiratory rales.

Shoulder pain and vomiting never occurred. The patient now began to lose weight at an alarming rate and the temperature was swinging from normal to 103° F. She could with difficulty be encouraged to take fluids and glucose. There was no sweating, and the urine showed only a trace of albumin. On the 20th day the white cells were 16,600 per c.mm., and on the 21st day rose to 19,600.

Under twilight sleep and local infiltration with novocain the right lobe of the liver was searched diligently, but with no result. Then the needle was directed into the greatly enlarged left lobe and 58 oz. of light yellowish-green fluid resembling thin pea-soup was removed by means of a Potain aspirator. This immediately relieved the patient, and the temperature kept at the normal level for 7 days. The emetine course was then stopped and the same signs and symptoms recurred. On the 32nd day of the disease aspiration was repeated after the white cell count had risen to 24,400. On the 37th day a further 16 oz. of thicker and darker material was aspirated. The patient continued to lose weight and strength, and for the first time the skin and sclera became icteric and there was choluria, associated with an irregular curve on the temperature chart.

As repeated aspirations failed to achieve a cure, and as the abscess in the left lobe could be seen standing out and fluctuation could be obtained there, open drainage was done.

Operation.—Under local anaesthesia the left rectus was split, and on a nick being made in the oedematous peritoneum odourless pus, thick and with coagula and sloughs, shot forth. Using Bailey's method of a tube within a tube and eusol irrigation, together with extreme care in the changing of dressings, secondary infection was avoided. The patient was discharged healed on the 30th day after operation. She was given stovarsol 4 gr. b.d. in a 10-day course and tab. ferrous sulph. 3 gr. t.d.s. for a month after operation, and is now fit for a normal day's activity.

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The Third Case of Fatal Air Embolism reported after Vaginal Insufflation

Recently details of a death due to air embolism following a picrotol insufflation of the vagina was reported by Dr. Latham Brown. The fatality occurred in a normal primigravida one week before she was due. The clinical picture and post-mortem findings of our case are almost identical to his. They will be stated to emphasize that air insufflation of the vagina in a pregnant woman near term is a very dangerous procedure.

CASE HISTORY

On June 4, 1943, a 1-para aged 21 was admitted to Ashridge Hospital. Her expected date of confinement was June 8. She was completely normal in every respect except for a malodorous vaginal discharge due to the *Trichomonas vaginalis*. On June 6, two days before she was due, it was decided to treat the discharge with a picrotol insufflation. Approximately ten pumps of the insufflator were used—i.e., about 600 c.cm. of air. The patient did not complain of any undue discomfort. When the insufflator was withdrawn she immediately went into what appeared to be a fit. Her eyes rolled up, she became very cyanosed, her pulse became imperceptible, and despite all attempts to resuscitate her she died within about three minutes.

At necropsy the woman appeared well nourished but cyanosed. Air was found in the heart, making the blood in the right side appear frothy. The neck veins had the appearance of overfilled spirit-levels, air showing through the walls. Air was likewise found in the sinuses of the brain. It was also abundantly present in the pampiniform plexus. The uterus contained a normal foetus at term. The placenta was situated high up on the anterior surface. The membranes were not ruptured. Air could be seen through the veins on the outside of the uterus. The cervix was large, inflamed, eroded, and patulous. Although we looked very carefully, we could find no evidence of bleeding, separation of the membranes or placenta from the uterine wall. However, a considerable amount of air was found on the maternal surface of the placenta. In the last case reported the membranes and a portion of the placenta were found stripped from the uterine wall. In that instance it was obvious that the air entered the circulation from the vagina by passing through the cervix, stripping up the membranes, and thus getting into the maternal sinuses of the placenta. The same route must be presumed in our case.

DISCUSSION

We are in entire agreement with the views stated arising out of Dr. Latham Brown's case, and think they should be repeated—namely, that it would be a pity if such an efficient form of treatment as picrotol insufflation should fall into disrepute on account of three fatalities in many thousands of normal cases, when precautions might guarantee its harmlessness. We also agree that an efficient cervical barrier must be demonstrated before insufflation is used, or some other form of treatment should be adopted.

It would seem that as the mode of entry of the air into the circulation is through the placental site, insufflation is only dangerous in a pregnant woman. Let us consider the question, Is insufflation dangerous throughout the whole of pregnancy or only in the later months? These two cases show that it is definitely dangerous in late pregnancy. In the other case, reported in Canada in 1936, death occurred in a multigravida only 4 months pregnant. Since the placenta is fully developed in form by about three months it would seem that there are present in miniature all the factors which are capable of allowing air to enter the circulation from then onwards. In all probability the danger of air embolism increases as the placenta enlarges and the os becomes more patulous. In other words, the later in pregnancy the more dangerous is the treatment. The treatment is also probably more dangerous in multigravid women, as their cervical barrier is less efficient.

Conclusion.—In early pregnancy it would be prudent to hesitate before insufflating a patient; and in late pregnancy dogmatism is justified—it must not be done.

(In fairness to the makers of picrotol, in their literature they state that insufflation should not be done in the last four months of pregnancy.)

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