section and at the same time ablation of the cyst.

As to the question of drainage, there is the usual difference of opinion, Spencer Wells, Hue, Sebileau and Lair favoring its employment in certain cases, while Schroeder, Terrillon and Gross among others consider it unnecessary. Generally speaking, drainage may be said to be indicated in cases with active peritonitis, when the fluid is mixed with blood or is purulent in character and after the rupture of dermoids. Even in some of these there may seem to be no need to resort to its use. When the entire cyst cannot be removed a gauze drain may be used with the hope that peritonitis will eventually destroy the secreting surface. The most important thing is so remove the cyst contents.

In closing I think we may say that the general consensus of opinion is in favor of an early operative treatment and surely the statistics of mortality will bear out such a decision.

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Clinical Department.

A CASE OF TRAUMATIC HEMOPERICARDIUM.

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ANTONINA P., two and one-half years old, was referred to me by Dr. Galbenewetz, July 10. She

had always been well and strong. A month before, while looking out of the window, she had fallen forward on a needle which was on the window-sill. The needle entered the chest near the right edge of the sternum and broke off. The mother thought about half the needle remained inside. She was immediately taken to the Relief Station, where a small incision was made over the point of entrance. Nothing was found. The incision healed in a few days.

She was apparently perfectly well for nearly two weeks after the accident. She then began to appear sick and gradually grew worse. Her symptoms were rather indefinite, however. Her appetite was poor, but she did not vomit. Her bowels moved regularly. She had no cough. She frequently put her hand to her side and said that it hurt. She had ceased to run and play but still walked about a little. She breathed hard almost constantly, the respiration often being grunting in character. She slept very poorly but was able to lie down.

Physical examination.—She was well developed and nourished but rather pale. There was very slight cyanosis of the lips and cheeks. When not disturbed her breathing was fairly quiet, but when she was at all excited or moved about, respiration became difficult and was accompanied by grunting. She was not able to lie flat, but was comfortable when reclining. The ala nasi moved at times. There was slight retrac-

tion of the lower chest with inspiration, but none elsewhere. The throat was normal. The tongue was fairly clean. The cervical lymph nodes were somewhat enlarged.

The thorax was symmetrical. There was no bulging of the intercostal spaces and none of the præcordia. There was no visible or palpable cardiac impulse. The heart sounds were everywhere diminished. They were heard most distinctly just inside of and below the left nipple, but were also heard feebly over the whole normal cardiac area as well as outside of this area, especially to the left. The sounds were no louder when the child was held face downward. The right border of cardiac dulness was at the right parasternal line, being the same in the third, fourth and fifth right spaces. The upper border was at the junction of the manubrium and sternum. There was dulness, continuous with the cardiac dulness, in the first left space and possibly a little higher. This dulness extended over the whole left front and axilla to the posterior axillary line. There was also dulness in the upper part of Traube's space. The character of the heart sounds was normal and no murmurs were heard. The second pulmonic sound was not proportionally louder than is normal at that age. There was a scar of an incision about one-half inch long at the junction of the sternum and the third right space.

Percussion of the right chest showed nothing abnormal except that the upper border of the liver dulness was in the sixth space. The respiration was normal in character but slightly exaggerated. There was slight tympany in the middle left back; otherwise the resonance was normal. There was no area of dulness in either the right or left back. Respiration was a good deal diminished in the left front and axilla but not changed in character. In the back the respiration was slightly diminished but not changed in character. The vocal resonance and fremitus were not obtained. No rales were heard.

The abdomen was somewhat distended but not tense. There were no evidences of fluid and there was no spasm. The upper border of the liver dulness was in the sixth space. The lower border could not be definitely made out, but there was resistance extending nearly to the umbilicus. There was tenderness on the right side from the costal border nearly to the umbilicus. The area of splenic dulness was not determined. The spleen was not palpable. The extremities showed nothing abnormal. The temperature was 100.6° F., the pulse 130, the respiration 50.

Fluoroscopic examination on July 11 showed the cardiac area of darkness beginning on both sides at the first rib, and extending 2½ cm. to the right and 3 cm. to the left of the median line. On the right side the border ran diagonally downward and outward just inside the right nipple to the junction with the liver

shadow in the sixth space 5½ cm. to the right of the median line. The cardio-hepatic angle was obtuse. On the left the line of darkness ran diagonally downward and outward just outside the left of the nipple and joined the abdominal shadow in the sixth space, 8½ cm. to the left of the median line. The border was less distinct on the left than on the right, but clear lung could be seen on both sides. The cardiac shadow did not change with position, being the same whether the child was lying or sitting. No needle was seen. A dark area, continuous with the liver shadow and probably caused by the liver, extended downward to just above the umbilicus and on the right nearly to the anterior superior spine.

While the physical examination pointed strongly to fluid in the pericardium, the signs were not as characteristic as were those given by the fluoroscopic examination. These were absolutely characteristic of effusion in the pericardium.

A needle was introduced into the fifth right space just at the edge of the sternum. A bloody fluid came out under considerable pressure. As a serous or purulent fluid had been expected, it was thought for the moment that the heart had been tapped. The needle was therefore immediately withdrawn. It soon became evident, however, that the heart had not been wounded, as its action continued regular and there were no signs of collapse. The needle was then introduced again into the sixth left space, 9½ cm. to

the left of the median line. Dark, bloody fluid came out under great pressure. A little more than 100 cc. escaped without aspiration; 400 cc. more were then withdrawn by aspiration. Cultures from this fluid remained sterile. The general condition was not at all affected by the operation. The heart sounds became much louder and a friction rub appeared over the lower portion of the pericardium. The child was much relieved by the operation and seemed very much more comfortable. She was able to sleep lying down and take her food well.

Examination on the 13th showed a feeble impulse, visible and palpable in the fifth space. The upper border of cardiac dulness was at the upper border of the third rib, the right border 2½ cm. to the right of the median line in the third and fourth spaces and 2 cm. to the right in the sixth space. The cardio-hepatic angle was acute. The left border of cardiac dulness extended 7½ cm. to the left of the median line in the sixth space, and in the fourth space about 2 cm. outside the nipple line. The left front was still slightly dull. There was no dulness in Traube's space. The heart sounds were loud and normal in character. The pericardial friction rub had disappeared. Air entered both lungs equally. The upper border of liver dulness was still in the sixth space. The lower border was palpable about 4 cm. below the costal border, extending a little more than half way from the costal border to the umbilicus.

Fluoroscopic examination the next day showed the upper border of the cardiac shadow at the lower border of the second rib and the right border about 1½ cm. to the right of the median line in the fourth and fifth

spaces. The cardiac apex was under the sixth rib, 6½ cm. to the left of the median line and ½ cm. to the left of the left nipple. The left side was not quite as clear as the right. The diaphragm in expiration was at the sixth rib on both sides.

The cardiac area shown by the fluoroscope was therefore within normal limits. That given by physical examination was larger than normal. It is difficult to explain this discrepancy, but of course the area shown by the fluoroscope must be accepted rather than that obtained by percussion.

The child's general condition improved very rapidly. She was up and running about on July 14 and was discharged well July 15. The temperature was normal after the 10th. The pulse and respiration continued rapid for two days, then became much slower. Just before the child left the hospital radiographs of the chest were taken which showed that half the needle still remained in the body. The needle evidently entered the body just at the right edge of the sternum in the third space, going diagonally upward behind the sternum, the greater part of the needle being behind the sternum, only the end protruding. Operation was advised but refused.

This case presents many points of interest, among which may be mentioned the unusual cause, the peculiar onset, the comparatively slight degree of the symptoms, the absence of many of the characteristic signs of pericardial effusion and the situation in which tapping was done.

The hemorrhage must, of course, have been due to a lesion of the pericardium caused by the needle. In such a case the symptoms would naturally be expected to come on immediately. The fact that they did not can only be explained on the supposition that the needle did not at first reach the pericardium, but later worked its way to it. It would be expected, moreover, that if the needle scratched the pericardium at one time it would continue to do so and that bleeding would recur after the removal of the fluid. That it did not can best be explained on the supposition that the needle had in the meantime become encapsulated. It would seem possible, however, that the needle might in the future cause a recurrence of the hemorrhage.

It is rather difficult to explain the comparative mildness of the symptoms with such a large effusion. The most plausible explanation seems to be that the greater part of the pressure of the fluid was exerted on the liver and diaphragm, pressing them down, and thus relieving to a certain extent the pressure on the lungs and heart. This explanation seems justified by the position of the liver and diaphragm as shown by the fluoroscopic examination.

When there is a pericardial effusion change of position causes, as a rule, a change in the area of dulness; as a rule, too, bending forward restores or increases the strength of the impulse of the heart sounds. This does not always happen, however, as is shown by this case. No explanation as to why it did not occur seems possible, however. An area of dulness in the left back, and possibly in the right back also, would naturally be expected with such a large effusion. Its absence may possibly be explained on the supposition that the fluid all gravitated downward rather than backward.

While the practicability of tapping the pericardium in the fifth right space close to the sternum has been demonstrated experimentally by Dr. Rotch and a number of other observers, the operation has seldom, if ever, been successfully performed during life. The results in this case show that the pericardium can be safely and successfully reached in this situation. The fluid came out under great pressure, and there is every reason to suppose that it could have been withdrawn as successfully here as it was when the needle was introduced into the sixth left space.

Medical Progress.

REPORT ON OBSTETRICS.

BY FRANK A. HIGGINS, M.D., BOSTON.

PUERPERAL INFECTION.

In a valuable paper on Obstetrical Therapeutics,¹ Dr. C. M. Green again emphasizes the fact that the treatment of puerperal infection primarily rests with intelligent, painstaking prophylaxis, and that the most effective thera-

peusis against infection is prevention. He says that in teaching the lesson of obstetrical asepsis, too much emphasis cannot be given to the fact that obstetrics is specialized surgery, that there is no essential difference between surgical and obstetrical asepsis; that in obstetrics as well as in surgery, not alone hands and instruments, but the field of operation, must receive adequate antiseptic preparation. The perfect sterilization of instruments is now possible, reasonable care may give suitable preparation to the vulva and to the contiguous parts which need be touched, but the asepsis of the naked hand is still a matter of uncertainty. The use of the sterilized rubber glove removes all uncertainty in this particular, and the time has come when this addition to our aseptic preparation must be accepted and adopted. He has made careful trial of the sterile glove in all phases of obstetric work from simple examinations to difficult operations, and he is fully convinced that the glove in no way inconveniences or interferes with the operator's work. He says it must be admitted that the teacher and clinician are doing all they can to spread abroad the lessons of puerperal asepsis, but the duty yet devolves upon the profession at large, not only to practice but to preach them.

OBSTETRICAL ANESTHESIA.

In the same paper Dr. Green says that modern civilization seems to have developed a type of woman who is incapable of bearing the pain of physiological labor. Ether and chloroform often produce uterine inertia, necessitate operative intervention and also predispose to post-partum bleeding. Medullary narcosis he does not regard as a safe and effectual method of relieving the pain of labor. With a mixture of scopolamine hydrobromate and morphia nitrate combined so that ten minims contain $\frac{1}{100}$ gr. of the former and $\frac{1}{4}$ gr. of the latter, administered by subcutaneous injection, he has had experience in sixteen primiparous cases and three multiparous. The cases are reported in detail. As a result of his observations, he says it would seem as if we have a valuable addition to obstetrical therapeutics, the good effects being very marked in primiparæ, but there was no apparent benefit in the few multiparous cases. The mixture was especially serviceable in nervous, excitable and hyperæsthetic primiparæ, and the best results are obtained when the drugs are given early in the first stage, as soon as symptoms of nervous irritability manifest themselves.

ECLAMPSIA.

In respect to the treatment of eclampsia, Dr. Green makes no attempt to review the many therapeutic measures that have been found of more or less value, but he speaks briefly of the value of hyoscine (scopolamine) combined with morphia as a means of controlling convulsions, and the extreme nervous excitability observed in certain cases.

He says that ether and chloroform have proved

¹ Med. News, Oct. 10, 1903, p. 692.