rigidity; there was a slight tinge of yellow; his temperature was normal; white blood-count was 10,500; the urine showed a trace of albumin, some pus and red blood-cells.

I concluded that he had a very much distended gall-bladder and decided to operate at once. On opening the abdomen I found the gall-bladder normal, but there was a considerable enlargement of the liver between the gall-bladder and the median line, which seemed to be nearer the surface on the under surface of the liver. This history of injury led to the diagnosis of intrahepatic hemorrhage. As the enlargement was so gradual and so recent there was some question as to whether the bleeding had ceased or not. To leave it was to invite infection and abscess formation. After the abdominal cavity was thoroughly protected with gauze packs, a trocar was passed into this bulging part of the under surface of the liver and about a pint of fluid blood was drawn off; the opening was then enlarged enough to admit two fingers for exploration of the cavity. A rubber tube wrapped with gauze and rubber dam was introduced and a gauze drain covered with rubber dam was placed beneath the liver at this point and the omentum was packed around the drains.

The patient was in good condition at the end of the operation and was placed in bed with the foot elevated. He made an uneventful recovery. A few days after operation there was a free flow of bile which continued for about two weeks. For the first week the patient was kept on a very limited diet; then a more liberal diet was allowed, but it was found that this made him quite ill with nausea, etc., probably because of the destruction of liver substance. The patient left the hospital in three weeks with only a small sinus draining mucus and was gradually increasing his diet.

SUSPENDED HEART ACTION IN ACUTE DILATATION; CARDIAC MASSAGE; RECOVERY

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During the past few years much has been written on the subject of cardiac massage in collapse, referring especially to desperate cases of chloroform anesthesia. Keen¹ has detailed two routes for reaching the heart: By resection of the chest-wall directly over the heart, and by manipulation of the heart through the abdomen, either with or without an opening in the diaphragm. König-Maas has reported favorably on massage of the heart over the chest-wall. He places the ball of the thumb of the right hand between the apex-beat and the sternum, and makes quick, sudden compressions of the thoracic wall at the rate of from thirty to one hundred times a minute.

The following case suggests the value of this latter method of cardiac massage:

E. G., a man aged 42, suffered with mitral regurgitation with moderate enlargement of the heart. The disease was of about two years' duration when he came to me, and after one year's treatment the murmur becoming inaudible, and the heart having resumed almost its natural size, he was discharged with due warning against physical or mental strain. On Jan. 15, 1912 (two months afterward), I was hastily summoned to his bedside, where I found him in a state of collapse. Examination revealed a condition of acute cardiac dilatation, with a rapid irregular and at times imperceptible pulse, dyspnea, cyanosis, cold clammy skin, extreme anxiety and restlessness with moments of unconsciousness. Hasty inquiry led to a history of mental excitement (due to business worries) several hours before, and physical exertion for the past few days. I administered a hypodermic injection of digitalin, atropin and strychnin and awaited results. Within three or four minutes he suddenly blanched, respiration ceased, he became pulseless and the heart action became imperceptible. All hopes seemed gone, and it appeared that my sole duty was to pronounce the patient dead. The next moment I was struck with the idea that cardiac massage be tried before giving up. I quickly grasped the precordial region with the right hand, making quick, sudden compression of the thoracic wall and was surprised to feel a slight response in the radial artery of the patient. Thus encouraged, I repeated this procedure at

the rate of about fifty times a minute, each resulting in a radial pulsation. An occasional gasp for breath indicated that the respiratory functions were also awakening to assist the patient. I continued the cardiac massage for about thirty minutes when, the radial pulsations becoming slightly stronger, I ventured to omit a cardiac manipulation. In its place there was a spontaneous, very slight radial wave. Soon I ceased this artificial method of circulation and the heart once more began its efforts to functionate. Judicious cardiac stimulation hypodermically was continued, and within five hours the pulse was of fair volume and rhythm. The patient was then given a hypodermic injection of morphin and atropin and allowed to rest for about eight hours. On my return he was markedly improved, and with the aid of careful nursing he made an uneventful recovery, returning to his business in eight weeks.

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HERNIA OF DIVERTICULUM OF THE BLADDER

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Patient.—Section Foreman B. R. K., aged 50 years, consulted me March 15, 1912, and gave a history of a log having rolled over his abdomen twenty years before, from which time his trouble dates. For the last ten years he had had a difficulty in passing urine if he held it for any length of time. He had been operated on four years before examination for inguinal hernia on the same side which was now causing the trouble. The present condition began to manifest itself a month before he came to me, at which time patient stated he was thrown back by a cable. I found the external abdominal ring normal in size and a fluctuating tumor about the size of an English walnut just to the right of ring, noticed only when standing up. I made a diagnosis of hernia and sent the patient to the hospital for operation.

Operation.—The following day, March 16, I made an incision about 11 cm. long through skin and fat over the hernial protrusion and along the course of the cord. I then came on dense cicatricial fascia of the external oblique extending from the external ring to about 7 cm. outward; from there on for about 4 cm. the fibers of the external oblique were separated. The fascia of the external oblique was split up to the point of the internal ring, and the cord was freed from surrounding structures, whereupon a tubular sac of about 5 cm. in length extending along the cord made its appearance. It resembled and folded on itself like a peritoneal sac and could be partly peeled from the cord; therefore I opened it to get in my finger to further loosen it up. After I had tried to free the lower end a straw-colored fluid began to make its appearance. A catheter was introduced through the urethra into the bladder and appeared at the part which had been cut into. The prolongation (diverticulum) of the bladder which had emerged at the point of the external ring consisted of mucous membrane and muscular coats, whereas the hernial protrusion of the bladder was at the external ring of the mucous coat alone. The prolongation of the bladder was barely large enough to admit my index-finger ending at the bladder by the wide mouth. I dissected it out to the external ring, then resected it, and closed it with a double row of running chromic catgut sutures, dropping it below the conjoined tendon and Poupart's ligament. The field of operation was mopped dry and the parts closed, placing the cord below tendon, muscles, and ligament. The fascia of the external oblique was overlapped and sutured with mattress and interrupted sutures of chromic catgut. No drainage was placed in the wound.

Postoperative History.—A retention catheter was placed in the bladder for the first three days and irrigated with saturated solution of boric acid and 1:2,000 solution of silver nitrate. The patient was able to be up on the eleventh day. Cystoscopic examinations of bladder two weeks and six weeks after the operation showed a linear scar of about 2.5 cm. at the left anterolateral wall of the bladder, a few congested spots in the neighborhood of the scar and a slight outward bulging to the left of the scar. There were no calculi and no obstruction to passage of the cystoscope.

1. Keen: Proc. Philadelphia County Med. Soc., 1904, xxv.