

about three quarts of sterilized salt solution (temperature  $110^{\circ}$ ) into the abdominal cavity, through the glass drainage-tube fortunately inserted at the operation. When I had transfused this quantity she began to scream and vomit violently. I removed the tube and closed the opening by firm packs of cotton-wool. The strange, and I may say marvellous, result of this procedure now became apparent. The pulse at the wrist was beating full, strong, and counted 110 per minute. The time between the extreme state of collapse described and the taking of the pulse after the transfusion could not have been, at the outside, more than five or six minutes. I do not therefore think this remarkable change was brought about altogether by absorption of the salt solution, but in great part by the mechanical effect of pressure upon the vessels and heart, especially the latter, by lifting the diaphragm upwards. Also, the activity of the absorptive power of the human peritoneum is well known, and is estimated at the rate of five to twelve pints per hour, or the weight of the whole body in from twelve to twenty-four hours. If this estimate be correct, there must have been, in my case, a large quantity of the transfused fluid taken into the circulation in a very few minutes—enough, certainly, to turn the balance in the case of a rapidly failing heart. On the other hand, I do not think pressure of the fluid had all to do with the result, because on examining the abdomen some hours after the transfusion, it was as flat and free from fluid as when the patient left the operating-room. Absorption here was complete, and an intense desire on the part of the blood-vessels for fluid was evidenced by the rapid draining of the peritoneal cavity. The blood-vessels were, however, satisfied with this supply, and the heart's beat did not average more than 115 during the following three and a half weeks she remained in my hospital. There was no effect on the temperature centres, as the highest temperature registered was  $101.5^{\circ}$ ,\* and that only on the second day; it then fell to normal and remained there.

The result of peritoneal transfusion in this case has been exceedingly instructive to me, and I am sure will also be to others

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\* So-called "fermentation fever."