THROMBOSIS.

Thrombosis occurs from septic infection, or from prolonged pressure of pelvic tumours upon veins, or from sluggish circulation due to the quiet recumbent posture, or from the change in the intra-abdominal pressure due to the removal of the large tumours. As thrombus is a potential embolism and as it may be set free at a late period patients should be cautioned against violent efforts or straining for some time after an abdominal operation. I lost a patient from this accident during the third week after operation; she had been sitting by the fire talking to the other patients and was in the act of pulling off her boots when she suddenly was seized with a feeling of suffocation, præcordial anxiety, gasping respiration, and cyanosis, and she died in a few minutes.

Of tetanus I have had no personal experience.

PERITONITIS.

A question of much importance is, whether peritonitis is always septic? Many would answer this question in the affirmative, but there is much to be said on the other side. There is a condition called traumatic or plastic peritonitis; it is best marked in cases where the intestines have been long exposed and much manipulated and where wide areas of adhesion have been separated. In the worst forms of this affection there are vomiting, severe pain in the lower abdomen, tympanitis, tenderness on pressure, accelerated pulse, and elevation of temperature. Death may result in such cases from pressure of the distended intestines on the diaphragm or from ileus. The treatment of this condition recommended some years ago by Lawson Tait—namely, free purgation—is, I believe, at the present time the recognised method. The non-infective character of many of these inflammations has been proved by Howard Kelly who, when obliged to reopen the abdomen to relieve obstructed bowel, found extensive union between adjacent peritoneal surfaces, but these cases failed to show any kind of micro-organisms in the peritoneal cavity and yet the evidences of the pouring out of a plastic lymph with the subsequent formation of adhesions were abundant.

SEPTIC INFECTION.

I now come to septic infection. The part played by living organisms in the production of disease has been most firmly established by "many infallible proofs" and appears to me as certain as the law of gravitation or the shape of the earth. Some who place their faith in procuring absolutely septic conditions spare no pains in attaining this object, while others regard such extreme precautions as superfluous and laugh at those who practise them as extreme ritualists, some even discarding all precautions excepting cleanliness and attributing their success to perfect technique and skill in operating. For myself I must confess that I am a ritualist.

The present aseptic treatment consists essentially in perfect cleanliness and whatever others may say I have no hesitation in stating that the doctrine of cleanliness originated with, and has been based upon, the teaching and practice of Lawson Tait and Bantock. Years ago, whilst most of us were practising antiseptic methods, they, in the face of bitter opposition, insisted upon the importance of perfect cleanliness and pointed out the injurious effects of chemical substances in irritating and poisoning the tissues. And at the present time we differ from them only in the meaning of the word *perfect*, for whilst they are satisfied with ordinary cleanliness we strive after and in a great measure obtain not only macroscopic but also microscopic cleanliness.

By perfect asepsis, then, we understand that everything which comes in contact with the field of operation must be absolutely pure. "Everything" includes not only the operator and his assistants, his instruments and dressings, but also the air and water. An operation may be carried out aseptically in any ordinary room, but this is achieved with great difficulty and risk, so that in my opinion so serious a proceeding as coeliotomy should, except under peculiar circumstances of emergency, always be performed in a special apartment so constructed that absolute cleanliness can be insured, with pure air free from draughts, ample supplies of pure water and good light, and heated to about 80° F.

[Dr. Smyly here described the arrangement of the

operating theatre at the Dublin Rotunda Hospital. He continued:]

Where an operation has been carried out with thorough aseptic detail and hæmorrhage has been completely arrested, drainage, one of the most important aids to success in former times, is now but rarely needed, but can never, I fear, be entirely abandoned.

With regard to the after-treatment of septic cases I shall only state that I place most reliance upon alcohol. Of anti-streptococcic serum I have had but little experience and that of a not very favourable kind. The reopening of the abdomen and thorough washing of the cavity I view in a pessimistic manner, though Howard Kelly speaks of it with approbation. The chief difficulty is diagnosis, for when this is clear it is generally too late to interfere. In conclusion, I may epitomise these somewhat fragmentary remarks with the advice of Doyen—"Opérer vite et bien."

Dublin.

HOMICIDAL INJURIES TO THE RECTUM AND VAGINA.

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AT about 4 P.M. on July 22nd, 1898, an unfortunate, aged 36 years, was seen to go into a house with a man. The landlady stated that the couple hired the room for two hours. She noticed only the man, with whom she bargained. At about 5.30 P.M. the man left hurriedly without paying, saying that he would be back in a few minutes, but that his "missus" wanted to rest a little longer. He did not return. The landlady was doing some washing in the room beneath that occupied by the couple all this time and said that the doors of both rooms were open but that she heard no sounds, not even footsteps. At about 6.30 P.M. she went upstairs and found that the woman was asleep; she noticed nothing peculiar about the room and left the woman alone. On this point there is some variation in the different statements made by the landlady. At about 7 P.M. she again went upstairs, roused the woman up, and noticed that she was ill. She had some conversation with her and at her request opened her stays. In doing this she noticed that the underclothing was saturated with blood and that there was a very foul odour in the room which caused her to faint away. On her recovery she procured the assistance of her niece who lived next door and finally had the woman conveyed to the Royal Infirmary at about 9.45 P.M. After getting the woman removed she noticed that the bed was saturated with blood; there was blood on the floor and washstand and blood-stained water in the basin. She said she thought that the woman had had a miscarriage. On the patient's arrival at the Infirmary she was found to have sustained very extensive injuries to the rectum and vagina and she died on the same night without making any statement. The landlady having got rid of the woman at once proceeded to clear up the room and wash the soiled linen. According to the evidence both the man and the woman were drunk.

On July 23rd, 12 hours after death, with the assistance of Mr. C. V. Knight, the assistant house surgeon, I made a post-mortem examination. The only external marks of violence were around the genital organs. There was extreme bruising for about two inches around the posterior part of the vulva and the anus. The anus was dilated and the sphincter was torn; the mucous membrane was lacerated in all directions, as was also the mucous membrane of the rectum as high up as the finger could reach. Per vaginam there was a deep laceration of the mucous membrane on either side from the vulva to the cervix; the vagina was not dilated and the cervix was normal. Before death no injuries other than these could be detected. On examining the interior of the body the peritoneal cavity was full of turbid, blood-stained, foul-smelling fluid evidently due to a perforation of the intestine which was found to be present in the rectum. The rectum on removal showed a longitudinal perforation two and a half inches long, lacerated and contused, in the anterior wall opening into Douglas's pouch; the lower end of the wound was four and a half inches from the anus. The mucous membrane

of the rectum was lacerated all round its circumference from the anus to the upper end of the wound—that is, for seven inches from the anal opening. The omentum was adherent by an old adhesion to the cæcum and presented near the adherent point a small recent bruise. On lifting it up, lying between the colon and the right kidney, which was moveable, was found a cake of soap considerably worn, three inches long by two inches broad and three-quarters of an inch thick. The Fallopian tubes showed old salpingitis. The uterus was nulliparous; all the other organs were healthy. Although the woman was said to have been very drunk, the only sign noticed was a slight smell in her breath on admission. Post mortem there was no smell or other indication of alcohol or any other drug in the stomach contents. The man having been arrested was tried and condemned for the murder of the patient.

The first question which arose was whether these injuries could have been self-inflicted. The situation, extent, and severity of the wounds are all much against this theory. It is conceivable that a person might by thrusting an instrument up the rectum produce a perforation of the rectum or that such might be the result of accidentally sitting down on some sharp spike, as in various recorded cases; but these theories would not account for the excessive lacerations, the injuries to the vagina, and the dilatation and rupture of the sphincter. Also, in these cases an instrument would have been found near the patient, while had it been the result of an accident some noise would have been heard and the patient would certainly have tried to get assistance. The motive for the infliction of the injuries is very obscure. It is not likely that they were the result of an attempt at an abortion, since both rectum and vagina were injured, and there is no reason from the post-mortem examination to think that the patient imagined herself pregnant. Lust-murder might be suggested, but against this is the evidence that there was no noise heard, no sounds of a struggle, and that the woman made no complaint of an attempt to harm her. Although this part of the landlady's evidence seems almost incredible, seeing the excruciating pain that the infliction of these injuries must have caused even in a drunken person, yet there was no reason for the landlady to have concealed the fact had she heard anything out of the common, and it is therefore, I think, fair to assume that the patient was a consenting party to the infliction of the injuries. Without doubt the piece of soap itself was incapable of causing the injuries, and it must have entered the peritoneal cavity after the perforation of the rectum had been made. It is possible that it was introduced into the rectum for some immoral purpose and that the injuries resulted from the clumsy attempts made to remove it, and this seems the most reasonable explanation of the crime.

Then comes the question as to the means by which the injuries were inflicted. The wounds of both vagina and rectum could have been easily explained if some rough instrument had been used and the bruise on the omentum would be accounted for by assuming that such an instrument passed through the perforation of the rectum, but no instrument was found in the house, although of course it might have been cleared away by the landlady. It is possible that the injuries were caused by the introduction of the hand into the rectum. Introduction of the fingers alone into the rectum could not have caused the laceration of the mucous membrane seven inches from the anus, and considering the large foreign bodies mentioned in the text-books which have been found in the rectum without causing much damage it is obvious that great violence must have been used. The man had been wearing a gold buckle ring with a projecting tag to the buckle, and although this might have caused laceration of the rectal mucous membrane it is somewhat doubtful if it would have inflicted the deep scores which were present in the tough vaginal mucous membrane, which it is fair to infer were inflicted by the same means as the rectal injuries, and therefore it is more probable that the injuries were inflicted by an instrument than by the hand, although no such instrument was found. No incriminating evidence could be found on the man although there were a few trivial blood-stains on his clothing, but these were not more than could easily be accounted for. However, he seems from reports which I have heard, apart from the evidence offered in court, to be a sexual pervert.

Taking all the facts into consideration the most probable conclusion seems to be that the injuries were inflicted in the clumsy attempt by the condemned man to remove the

soap which had previously been introduced into the rectum of the woman who was a consenting party to the attempts, but that whether the injuries were caused by an instrument or by the hand it is impossible to say.

Hull.

A CASE OF CYSTICERCUS CELLULOSÆ.

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THE occurrence of the larval stage of the *tænia solium* is, I believe, uncommon in the human subject in this country, and the following case may therefore be of interest.

The patient in whom the cysticercus was found was an epileptic dement who had been an inmate of the asylum for more than five years at the time of her death. Any previous history was unobtainable, except that she had lived a considerable time in India. On admission the patient was hemiplegic, and this condition persisted up to the time of her death. She was very demented, and was in the habit of eating leaves and rubbish which she picked up. She never complained of any definite symptoms whilst in the asylum. Death was due to diarrhoea and exhaustion. The presence of the parasite was not suspected during life. At the necropsy small calcareous nodules of about the size of a lentil seed were found in the subcutaneous tissues throughout the body. They could be easily felt through the skin in most parts and were quite moveable. On opening the pericardium the heart was seen to be studded with calcareous bodies, varying in size from that of a pea to that of a small marble. In addition to these a few cysts containing clear fluid were found, some of which had calcareous deposits in their walls whilst others had calcareous matter in the form of granules lying loose in the fluid contents. The condition was best seen on the posterior aspect of the left ventricle. There was no

Figure showing the base of the brain. c marks the position of a cyst.

evidence of pericarditis. On opening the heart the same condition was found to exist in the ventricles and in the substance of the walls, the growths being seen in all stages from that of a soft translucent cyst to that of a calcareous nodule. As many as 30 of these growths were counted in the whole organ. On removing the calvaria and dura mater the pia-arachnoid was also found to be studded with calcareous bodies similar to those in the subcutaneous tissues but somewhat larger in size. The membrane stripped easily, being adherent neither to the dura mater nor to the cortex. The brain itself contained numerous cystic bodies embedded in its substance. Most of these