takes place, leading to marked staphylomatous changes. Under the combined treatment of mercury and iodide of potassium internally and pilocarpine hypodermically there need be, I think, no such result, but a permanent curative effect may be secured. The patient's history is tuberculous.

CASE 2.—The other case is that of a boy, aged 12 years, suffering from acute sympathetic ophthalmia—that is, a very severe cyclo-irido-keratitis. When the sympathetic trouble, which showed itself rapidly, was first noticed, the other eye, which had been injured by a penetrating wound, extending well up into the cornea from just at the ciliary region, was excised, the date being Jan. 25th, 1900. Under atropine the pupil at once became fully dilated. Mercury and iodide of potassium were given and the eye at first improved. On Feb. 2nd, eight days after the excision, the sympathetic inflammation again plainly showed itself. I now began combined treatment. For the first 12 injections of pilocarpine, that is the first two weeks, the effect was not full, though I gave as much as one-sixth of a grain. I felt that there was some reason for this, for one-sixth of a grain is a very large dose for a boy 12 years old. The throat was very slightly affected by the atropine and apparently there was no noticeable constitutional effect. However, I stopped, by more careful pressure upon the canaliculi, all passage of it into the throat when one-tenth of a grain gave a full effect. The pupil was now, at the end of three weeks only, dilated one-third, the exudation into the ciliary region and iris tissue causing the narrowing to take place. The pupillary margin was very firmly bound down and the capsule of the lens in the pupillary area was covered with a semi-translucent coating of lymph. On the 24th, four weeks since the excision and about three weeks since the beginning of the combined treatment, another acute attack came on and the condition was as follows. There was much general infection, the tension was +1, there was severe pain, and keratitis punctata was present throughout the whole cornea—in fact, a well-developed case of sympathetic cyclo-irido-keratitis; there was perception of light only. Under the usual prognosis with respect to similar cases there was a very hopeless outlook. On the 27th the eye was quieter; the tension was +. On March 20th the eye was still improving and vision was better. The combined treatment was still kept up and the eye kept doing well till the 23rd when there occurred a very acute exacerbation with severe pain; the tension was +1 and there was perception of light only. On the 31st the eye was better. Between this date and the beginning of September the combined treatment was kept up. An improvement which was most uniform, thorough, and unbroken by any symptoms of relapse resulted. The sight also gradually improved till now (Sept. 6th, 1900) the vision is $\frac{1}{2}$ less two letters. The absorption has continued very satisfactorily so that the pupillary margin has given way throughout almost its whole extent. The pupil, however, is dilating very slowly, due to the exudation into the iris tissue. This absorptive process I confidently believe will continue till finally the whole of the affected region will again be restored to a healthy condition. The tension is now normal. This is the first case of acute sympathetic ophthalmia which I have had the opportunity of treating in this way, and the results at the end of about eight months fully convince me that the result will be for all practical ends an eye normal as regards vision and its general condition. This boy has taken internally ever since Feb. 2nd, 1900, five grains of iodide of potassium thrice daily after eating and the twenty-fourth of a grain of bichloride of mercury before eating. One-tenth of a grain of pilocarpine was given hypodermically every second day after the first two weeks for five months continuously. During the remainder of the eight months at the end of every two weeks I have given an injection every second day for six injections and am still going on with them. His general health is good.

Other cases previously published by me,² added to those now given and also many minor ones not reported, have given results better than those obtained by other treatment so that I feel justified in advocating the superiority of the combined form of treatment. During four years as resident house surgeon at Moorfields Eye Hospital I saw a good many cases of sympathetic ophthalmia, and I am persuaded that under any other treatment the result in Case 2 would have been that, under the best of

circumstances, the eye would have been greatly impaired. The treatment may be said to owe its efficacy to its power of arousing to excessive activity, in a vigorous and sustained manner, the normal physiological processes in diseased tissues, and thus acting so in accord with the efforts of nature as to bring about a restoration to a normal condition. I am now using this treatment, in this belief, in a case of double conical cornea with so far very encouraging progress. Toronto.

A Mirror

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF INFLAMED CYSTIC OVARY WITH PELVIC CELLULITIS AND PERITONITIS WITH DEVELOPMENT OF SEPTICÆMIA SUCCESSFULLY TREATED WITH ANTI-STREPTOCOCCIC SERUM.

(Under the care of Dr. W. W. H. TATE.)

IN the following case the evidence of the value of anti-streptococcic serum is very strong, in spite of the fact that the patient refused to allow the blood to be examined bacteriologically. Even, however, if the patient will not permit an examination of the blood, much information may be obtained from a bacteriological examination of the uterine cavity. W. Williams¹ examined 44 cases of puerperal fever and streptococci were found in only eight of these. Most observers are agreed that the evidence is against anti-streptococcic serum being of much value except in isolated cases, yet as the injection very rarely appears to be in any way harmful it would be well to give the serum an extensive trial, a bacteriological examination of the blood being made whenever possible. For the notes of the case we are indebted to Mr. Hanway R. Beale, senior obstetric house physician.

A married woman, aged 37 years, was admitted into St. Thomas's Hospital on Oct. 13th, 1900, under the care of Dr. Tate. The patient had had 10 children and no definite miscarriages; her last child was born three years ago; the confinements had been normal. The present illness began in July, 1899, three weeks after a menstrual period, when the patient had a sudden flooding after lifting a tub; she supposed that she lost three pints of blood. The vagina was plugged, but the hæmorrhage persisted for three weeks, when some operation was performed at a cottage hospital where she stayed one month. The patient thought that she was pregnant at the time. On Oct. 4th there occurred a discharge of blood and yellow matter of offensive odour, and in November a second operation was performed similar to the previous one. At this time there was also frequent and painful micturition. The operation was followed by a high temperature and severe abdominal pain lasting six weeks; in December the uterus was curetted, and two weeks later a perineal abscess was opened. After this she was well until June, but she did not menstruate during this period. Menstruation commenced after one week's severe abdominal pain. In July a lump was noticed in her right side but operation was not deemed necessary. In September frequency and pain on micturition became continuous and pain in the lower part of the abdomen was worse. She was seen by Dr. B. H. Kingsford of Woking, who diagnosed pelvic cellulitis and sent her to St. Thomas's Hospital.

On admission into St. Thomas's Hospital she was found to be of cachectic appearance and complained of great pain in the lower part of the abdomen and pain and frequency of micturition. There were great tenderness just above the symphysis pubis and a sense of fulness and great tenderness about the right flank, and there was a resistant tender

² Archives of Ophthalmology and Ophthalmic Review.

¹ American Journal of Obstetrics, September, 1898.

tumour of about the size of a tennis-ball in the hypogastrium just to the right of the mid-line. Owing to the tenderness she was examined under an anæsthetic by Dr. Tate and the condition found per vaginam was as follows. The cervix uteri was directed backwards. The external os was patulous and the lips were rather œdematous. The body of the uterus was fixed and appeared to be in the middle line. On the right side of the uterus there was a hard cartilaginous mass extending outwards to the pelvic walls and reaching just above the brim of the pelvis, evidently the result of cellulitis. The mass extended forwards into the anterior quarter of the pelvis and apparently into the cellular tissue between the cervix and bladder. On the left side there was a smaller swelling extending backwards from the side of the uterus to the lateral pelvic wall and quite fixed. The anterior vaginal roof was found to be slightly depressed and to have a boggy feeling. Nothing abnormal was found in the heart and lungs. The urine was alkaline and contained pus and traces of albumin. There was no sugar. The specific gravity was 1024 (catheter specimen). The tongue was slightly furred.

From Oct. 13th to Nov. 6th the patient was kept quiet in bed, during which time she suffered a good deal from pain in the lower part of the abdomen, this at times being very severe. Micturition was frequent and painful. The temperature during this period varied from 98·8° to 100·6° F., once reaching 102°. As it was thought possible that there was a collection of pus in the cellular tissue between the cervix and the bladder ether was administered and a further examination was made, when it was found that the mass previously felt on the right side of the uterus had diminished in size slightly but was still of a cartilaginous consistence and was immovable. On the left side there was now only a slight thickening in the situation of the broad ligament which was slightly moveable up and down. Anteriorly a swelling could be felt in the situation of the bladder causing some bulging of the anterior vaginal wall and probably the result of cellutic thickening about the wall of the bladder.

By the introduction of a sound the uterus was shown to be slightly retroverted. Adherent to, and above the level of, the fundus there was a rounded swelling of about the size of a cricket-ball and having the consistency of a sub-involuted uterus but apparently moveable to a slight extent on the anterior surface of the uterus. The sound did not appear to enter this mass. The cervix uteri having been drawn down by means of a volsellum, an incision was made with scissors through the mucous membrane of the vaginal fornix just above the cervix. The finger was then inserted through the incision into the cellular tissue between the uterus and the bladder in order to give an easy exit to any pus which might be present. None was evacuated and the opening made was plugged with iodoform gauze. The temperature fell after this but rose again next day and continued to vary from 99° to 101° and 100·6°. A rigor occurred on Nov. 9th, and the patient had a good deal of pain in the lower part of the abdomen. As she had not improved with rest and it was considered that the inflammatory mischief justified interference it was decided to make an exploratory laparotomy.

The operation was performed on Nov. 15th. On opening the abdomen evidence was found of considerable pelvic cellulitis and peritonitis. The uterus had been drawn down to the left side and fixed. The left ovary and tube were healthy; the right tube, although thickened and the fimbriæ œdematous, was also healthy. In the situation of the right ovary there was a spherical tumour of the size of a tennis ball and entirely covered by peritoneum except at its attachment to the broad ligament which was continued for a considerable distance down the pelvis and was flattened from side to side. As there did not seem to be sufficient disease in the abdomen to account for the patient's condition a further examination was made of the parts in front of the uterus by the combined abdominal and vaginal method and with the assistance of the bladder sound a swelling was now localised between the cervix and the bladder evidently containing pus. The abdominal opening was now temporarily closed with sterilised gauze and a bistoury was introduced through the old scar in the vagina and a deep incision was made through its anterior wall just below the fornix, giving exit to about two ounces of creamy, non-offensive pus. The abscess cavity and the vagina were irrigated with sterilised water and were plugged with iodoform gauze. The operators having been re-sterilised and the instruments changed the abdominal operation was

resumed and the ovarian tumour was removed. As there was persistent slight hæmorrhage from the cedematous tissues a thin gauze plug was inserted and the wound was closed. Examination of the parts removed showed that the tumour consisted of an outer soft cedematous ovary containing numerous Graafian follicles and an internal cyst which was easily enucleated and on incision was found to contain sanious fluid in which floated masses of pale translucent lymph; its walls were a quarter of an inch thick and were coated with inflammatory lymph.

From Nov. 16th to the 22nd good progress was made; the stitches were removed on the 22nd, the wound looking clean and there being apparently good union. On the 24th there was much abdominal pain and an area of dulness was found over a slight swelling in the lower part of the abdomen behind the wound. Fluctuation and great tenderness were found over it. On the 26th these had increased and the temperature had risen to 100.4° every day since the 23rd. Accordingly an incision was made in the swelling under nitrous oxide gas and 14 ounces of creamy inodorous pus were evacuated, and a drainage tube having been inserted the wound was dressed with hot boric acid lint. This was followed by a fall in the temperature and by general improvement until the 30th, when the tube was discarded, there being very little discharge. In the evening of this day there was a rigor and the temperature rose to 102° and continued to be remittent, as can be seen from the chart. Tepid sponging was ordered whenever the temperature arose above 103.4°. A second rigor occurred at 5 A.M. on Dec. 4th, on which date the abdomen was quite flaccid and there was no indication of pus anywhere. The urine was neutral, of specific gravity 1012, and contained no albumin, pus, or sugar. Further rigors occurred on the night of the 10th and on the 11th. The blood count showed that the red cells numbered 4,800,000 per cubic millimetre and the white cells 57,600. Nothing abnormal was detected on examination of the heart and lungs; the pulse was 108, full, and of low tension. Per vaginam there was felt a hard mass on the right side in the situation of the broad ligament passing backwards in the pelvis to the utero-sacral ligament. There was a smaller mass in the left broad ligament. The uterus was fixed. By abdomen the spleen was felt to be enlarged. Another rigor occurred on the 12th with a rise of the temperature to 105°. Examination of the heart revealed a soft blowing systolic murmur at the apex and a slight friction sound just after systole over the sternum at the level of the fourth rib. There was no increase in the pericardial dulness. The spleen was felt one inch below the costal margin. Pain was felt in the right shoulder and sterno-clavicular joint and the latter was swollen and reddened and evidently contained fluid.

Up to Dec. 15th the patient's condition was obviously getting worse. On this day the injection into the flank of anti-streptococcic serum in doses of 10 cubic centimetres was commenced, a blood examination for culture purposes previously to doing so being refused. Further injections of 10 cubic centimetres of serum were given on the 15th, 16th, 17th, 19th, and 20th, six in all; the temperature fell immediately after each and no rigors occurred after the first injection. From the 20th the patient steadily improved and recovery was uninterrupted, the temperature finally falling to normal on Jan. 3rd, 1901. An urticarial rash had appeared on Dec. 28th, but was very transient. The patient was discharged on Jan. 16th feeling well; the appetite was good and the bowels were acting regularly. The pain had gone from the shoulder and the sterno-clavicular joints and there was only slight stiffness on movement. She could walk well without support. Vaginal examination showed evidence of the cellulitis, but most of the swelling had gone down and there was only a little thickening.

Remarks by Mr. BEALE.—Until recently the treatment of septicæmia has been limited to removing the origin of the poison, if possible, leaving the rest to the *vis medicatrix nature* and at the same time trying to aid the resistance of the body by the exhibition of stimulants. To be sure that a particular case is in reality one of streptococcal septicæmia the only infallible method is to make cultures from the blood on nutrient media and to have them examined by a bacteriologist. Unfortunately in this case permission to do so was rescinded at the last moment, and the anti-streptococcic serum was administered on the supposition that the case was one of septicæmia judged by the history and clinical signs. I think that I shall be able to show that these make the diagnosis quite clear.

The case commenced with a hæmorrhage from the uterus, possibly due to a miscarriage, which was allowed to continue for three weeks and was then followed by some manipulation, the nature of which I am unable to determine, but whatever it was it would give an opportunity for septic infection. This was followed shortly afterwards by a purulent discharge and the occurrence of pelvic cellulitis and by collections of pus in the pelvis and ovary. Passing on to the time when the septicæmia is supposed to have become evident we find a sudden rigor on Nov. 30th, followed by a rise of temperature to 104.4°, and from this point the fever continued to be intermittent, another rigor occurring on Dec. 4th and again on the 12th, and a succession on the 14th and 15th. This, with the facial aspect and attitude and the presence of the enlarged spleen and diarrhoea, indicated that she was suffering from an extreme toxæmia. In addition to these, in septicæmia in all but very slight or rapidly fatal cases we should expect a leucocytosis, which was present in a marked degree. This, with the absence of a characteristic eruption and a continued fever, served to distinguish it from typhus and enteric fevers, the only two causes from which any difficulty of diagnosis could arise. In addition to the foregoing we have the development of a cardiac murmur and the joint condition as evidence in favour of septicæmia.

Considering now the reaction to treatment with anti-streptococcic serum we find that the behaviour of the temperature is remarkable, for each injection of serum was followed very soon by a rapid fall and a decline in the fever, till on Dec. 17th there was none. No serum was given after noon on the 17th and none at all on the 18th, but that night the temperature rose to 101°, and fell again after injection and similarly on the evening of Dec. 20th, after which it showed no tendency to rise much above 100°. This behaviour clearly points to cause and effect, for it can hardly be supposed that the considerable fall after each injection was a mere coincidence. The urticarial eruption which appeared on Dec. 21st was either the result of the septic poisoning or of the injection of the serum, and in this respect resembled the erythematous eruptions so often seen in diphtheria wards. It is interesting to note that there were no disagreeable sensations experienced by the patient after any injection except pain at the site, nor were there any collapse symptoms. I think that the foregoing facts clearly show that the case was one of septicæmia and that it was cured by the administration of anti-streptococcic serum.

I am indebted to Dr. Tate for permission to publish the case.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Arterial Hæmorrhage from the Ear and its Control by Ligature of the Common Carotid.—Acute Leukæmia.

A MEETING of this society was held on April 23rd, Dr. F. W. PAVY, the President, being in the chair.

Mr. WALTER G. SPENCER read a paper on *Arterial Hæmorrhage from the Ear and its Control by Ligature of the Common Carotid Artery*. He considered in this paper cases of severe, recurring, and ultimately fatal arterial hæmorrhage from the ear in cases of suppurating otitis media. Such cases were shown by post-mortem examination to be due to ulceration into the internal carotid artery at, or close to, its curve in the petrous bone. All these were necessarily advanced cases in which the prospects of surgical interference appeared to be unfavourable; but if all the recorded cases were considered it was shown that they fell into three groups. 1. Cases entirely unfavourable on account of being secondary to pulmonary tuberculosis, in which, although the hæmorrhage might be controlled, yet death ensued sooner or later from the pulmonary disease. 2. Cases of chronic ear disease which by modern methods were preventable by a timely operation on the middle-ear and antrum. Perhaps also large doses of mercury had bad effect in some of the older cases. 3. In a third group of recent cases arising after acute inflammation in children the hæmorrhage had been successfully controlled by ligature of the common carotid. In the absence of post-mortem evidence the source of the hæmorrhage was conjectural, but it came most probably from the carotico-tympanic twig close to its origin from the internal