REPORT OF THREE YEARS' SURGICAL WORK

By Florence N. Ward, M. D., San Francisco

This report includes the gynecological and abdominal work in my private sanatorium from the date of opening, April 15, 1911, to April 15, 1914. During this time, 567 patients were operated, 12 of whom returned for second operations, making a total of 579 cases. Of these 323 were capital, the remainder, or 256, were minor operations. In this series of cases there were four deaths, making the mortality rate .67% or 6/10 of 1%. One patient died suddenly on the eighth day following a plastic operation and umbilical herniotomy. The nurse was lifting her in bed and she suddenly expired, evidently an embolism. There were two deaths with symptoms of acetonuria, and one from shock following the removal of a large hepatic tumor.

This mortality rate is not so good as that of the gynecological report of the Memorial Sanatorium, which I read before the California State Homœopathic Medical Society in May, 1911, under the title of "The Gynecological Report of Memorial Sanatorium," where in a series of 459 operations no deaths occurred. Occasionally an unexpected disaster may happen, even though every precaution is taken to safeguard the patient. In the present report, there are certain groups that show no mortality, 78 laparotomies for uterine fibroids of all sizes and degrees of severity without a death, 19 Cesarean sections without a death, and 108 appendectomies with similar successful outcome. The past year's list of cases has shown a nil mortality. It is hardly possible to bring the death rate for a long series of mixed operations below a fraction of 1%. That much we must allow for the elusive human element which thwarts our most careful estimation of the surgical capacity of each patient.

With the perfection of surgical technic, leaving little more to be desired, we are able to devote ourselves more thoroughly to the study of the individual patient, not only in estimating her resistance and preparing her for the operation, but also in diminishing the morbidity and making more certain her ultimate restoration to health.

It is in the private sanatorium, where team work is developed to its best possible efficiency and where the ideals of the chief worker can pervade and dominate the whole atmosphere, that the most perfect results can be obtained.

In looking over the work of the last three years, one of the most important advances is the ease of the convalescence and the ultimate rapid and sure recovery for the patient to the normal plane of health. This may be attributed to a number of factors; first, the careful pre-operative study of the patient, secondly, the simplicity of the technic both surgical and anesthetic, and thirdly the saner and gentler management of the convalescence.

Pre-operative. A careful history of the patient is taken, previous illness recorded, and her tendencies and type of constitution noted. Then a general examination is made, with blood pressure, blood counts and urinalysis and her recuperative and eliminative powers determined. The surgical capacity is estimated from all these findings. If a mild interstitial nephritis exists, as is so frequently found at or after the menopause, or if there is a cardiac weakness, or hepatic insufficiency, it means that the patient must not be subjected to an unduly prolonged or severe operative procedure. The simplest and most rapid method is chosen — the one that will throw the least burden upon the weak vital organs. Many a poor surgical risk will bear a short, quick operation which gives but little insult to the peritoneal cavity with comparative equanimity and well within the limits of safety, but who would succumb readily to prolonged surgical manipulation. The surgical judgment in the selection of the case, and the character and degree of the operative measure, ranks higher in importance than the mechanical execution of the work.

If the patient is exhausted by nerve-strain or over-work, and is also overloaded with her own toxins, it is best to put her to bed for a few days' rest, thoroughly flush her out, and by light diet put her mechanism in better shape to meet the operative strain. A quiet atmosphere and personal attention do much to relieve the patient from the dread and fear of the ordeal. Above all, every effort is made to secure her confidence and co-operation in what is to be done and secure her readiness to take the anesthetic in a placid and peaceful frame of mind.

Castor oil is given the afternoon preceding the operation, and by bedtime the intestinal tract is cleared. The preliminary scrubbing and preparation is made the night before. This is followed by iodin applications and an enema the morning of operation, which completes the pre-operative preparation. A hypodermic of morphin ¼ gr. and scopolamin 1/200 gr. is given one hour before anesthesia. Nitrous oxide-oxygen is almost invariably given and novocain injected locally according to Crile's method. There is no doubt as to the greater postoperative comfort of the patient

after nitrous oxide; there is very little nausea as well as a much better action of the kidneys.

Surgical Technic. The surgical technic is reduced to the greatest possible simplicity, all elaborate and complicated procedures are discarded, and the greatest gentleness of touch is exercised in all manipulations in the peritoneal cavity, remembering that every injured area means possible adhesions and lowered resistance to any infection. As few gauze pads are used within the abdomen as possible, and these are saturated with warm saline solution. The time consumed is always carefully recorded, and if a procedure takes much longer than an hour the technic is modified, for experience has shown that the longer the exposure of the peritoneal cavity, the stormier the convalescence, and the greater the morbidity. The maxim in abdominal work should be, "gentle touch, rapid work, and mathematically perfect technic."

Postoperative. The postoperative care should be largely to let the patient alone. Just as there has been much meddlesome midwifery, so there is much postoperative interference. The patient requires time to gather her powers after the insult of surgery to the organism, and if she is permitted to rest quietly, the later convalescence is much more comfortable. As soon as the operation is finished and the patient returned to bed, the Murphy-drip is begun and continued for the first twenty-four hours. If the patient cannot bear her discomforts, heroin 1/12 gr. is permitted. Water by the mouth is given in 12 hours, and fruit juices, light broths, and gruels during the first two days. Gas rarely begins to pass until late in the second day or beginning of the third. On the morning of the third day, an enema is given and usually a satisfactory result obtained. A light diet of solid food is then given for a few days; after this the patient is put on full diet. Stitches are removed the tenth day with invariably perfect result. In the pelvic cases, particularly if accompanied by plastic work, I do not hurry the patients on their feet too soon. Those having operations in the upper abdomen bear sitting up much earlier than pelvic surgical cases.

After leaving the sanatorium the patient is kept under observation and care until she is fully restored to health. The operative measures are considered but an incident in the patient's progress and the convalescent care is regarded as important as the operative procedure. Nervousness and weakness must be combated, and the patient built up until all ravages of the pathological processes necessitating the operation have disappeared.

Interesting Cases. The greatest interest is attached to the ab-

dominal cases—of these fibroid tumors of the uterus number 78. In most cases the technic employed was supravaginal hysterectomy, leaving one or both ovaries to preserve the ovarian influence in the body, and to diminish the severity of the symptoms attending the artificial menopause.

The most unique fibroid was found in a young married woman, age 26, who weighed 235 pounds. The patient came from the country and was just recovering from an acute attack of peritonitis. The abdomen was very tender and the tumor could be palpated on the right side of the abdomen, well up to the umbilicus. On opening the abdomen, the tumor, fibroid in character and which weighed nearly three pounds, was found lying transversely across the abdomen and firmly bound down by adhesions. The right tube and ovary were drawn over the anterior surface of the tumor. The lower lobe extended down into the Douglas cul-de-sac and was adherent to the posterior surface of the uterus. The adhesions were separated with difficulty and the tumor delivered, but no evidence of any pedicle existed in any direction. It evidently had ruptured its original attachment, probably by torsion, and was being nourished through its adhesions.

Of the cystic or ovarian tumors, the largest was encountered in a patient 73 years of age. It was an irregular multilocular ovarian cyst rising to the ensiform. She bore the operation easily and made a good recovery.

There were nineteen Cesarean sections, all successful for the mothers, and also for the children when performed when the child was viable. There were four cases—one of pernicious vomiting of pregnancy, one of hematuria and two of placenta previa, in which the operation was undertaken solely in the interest of the mother; otherwise all the viable children, numbering fifteen, lived. This series of Cesarean sections present some most unusual and interesting points, but as they are included under the series of twenty-eight Cesareans without a death, reported in the Obstetrical Section,* they will not be further noted here.

There was an unusually large number of cases of bowel obstruction, due either to malignant changes in the intestines or to bands of adhesions. One of the most interesting cases of the series was a young woman, aged 30, who was four months pregnant. She was seized with very violent pains in the right lower quadrant of the abdomen, attended with nausea and vomiting, great distention of the bowels and all the classic signs of bowel obstruction. The symptoms became so urgent that the abdomen

*J. A. I. H., Nov., 1914, p. 499.

was opened to the right of the right rectus muscle. The bowels were enormously distended. The cause of the obstruction was found to be a band extending from the appendix to the middle of the right Fallopian tube, which had tightly constricted a loop of the ileum. The band was severed and the appendix removed. The patient made an excellent recovery without interruption of the pregnancy. Two months later, when six months pregnant, she was again seized with violent abdominal pains, this time located in the epigastrium and attended with nausea and vomiting and great distress and tenderness. The peristaltic wave could be clearly seen as it swept across the upper part of the abdomen, knotting up at the site of the greatest pain. Again the diagnosis of obstruction was made. After consultation, operation was decided as the only means for her relief. The abdomen was opened in the midline between the ensiform and the umbilicus, the fundus of the uterus presented above the umbilicus with coils of the intestines greatly distended. Attached to the fundus of the uterus were found two coils of the small intestine firmly adherent with a space of about six inches between the two points of attachment. The gut was twisted upon itself between these adhesive areas. The gut was carefully separated from the uterus, the raw surface of the intestines sutured and immediately the collapsed intestine distal to the point of obstruction filled and the normal peristalsis was apparent. The patient made a good recovery and pregnancy went on to full term. She was delivered of a fully developed male child March 27, 1912, having a normal delivery and puerperium.

Of the displacements necessitating operation, there were 87 retroversions, 39 of which were in nulliparous women and 48 multiparous. There were 23 cases of procidentia, two of whom had had no children.

The technic employed varied according to the needs of the individual case. In the retroversions, the displacement is as a rule but one element in the pathological pelvic disturbance, and to bring about a restoration to normal it is as necessary to inspect and repair the peritoneal lesions as to consider the vaginal aspect.

On opening the abdomen, and after correcting the co-existing lesions, it really makes but comparatively little difference what method of correction is employed, just so that the fundus of the uterus is brought well forward to the pubes, that the intra-abdominal pressure may be exerted upon the posterior surface of the uterus, and that the axis of the uterus be placed at right angles to the axis of the vagina, with the cervix well back into the hollow of the sacrum.

The results in our cases of procidentia have been most satisfactory and here even more than in the treatment of retroversion is the necessity of careful individualization. Every procidentia is dependent for its production upon several factors acting singly or together, either increased weight within the uterus or above it, inducing relaxed uterine supports, or the pelvic floor has given way, usually as the result of lacerations from child birth. Sometimes the brunt of the lesion is shown upon the anterior segment of the pelvis and the greatest stretching has occurred in the vesico-uterine space. This must be corrected by strengthening this weak area by layers of sutures as advocated by Polk. At other times the posterior segment shows the greatest weakness, as seen in bad rectal prolapse. This is best corrected by careful suturing of the levator ani muscles and the restoration of the pelvic floor. In these cases of procidentia whatever else is done, the uterus is always retained and used as a suspensory ligament to the abdominal wall. If the body of the uterus is large enough, it is split and each lateral half carried through the recti muscles and stitched according to Crile's method. If too small, then a triangular area of the anterior surface of the uterus is made raw and firmly implanted upon the recti muscles. Peritoneal adhesion in these extreme cases is not sufficient as under long continued strain, peritoneal ligaments always elongate. These firm fixations together with the well-selected plastic work always give permanent and most satisfactory results.

Of the carcinoma group, one of the most interesting cases was a young married woman, aged 26, five months advanced in her first pregnancy. A tumor was discovered on her left side, which on opening the abdomen was found to be carcinoma of the left ovary. It was removed. The pregnancy progressed to full time with normal delivery of a living child, and up to the present date, 1½ year after operation, there has been no return.

In making survey of the recent work one of the most gratifying things noticeable is that patients are now brought earlier for operation than formerly, with correspondingly better results. Rarely now do we encounter the enormous ovarian and fibroid tumors that were so frequent a few years ago, when the patients delayed coming until so profoundly septic or anemic that the operation was hazardous in the extreme.

In closing this report, I must express my appreciation of the good services rendered by Drs. Cameron and Boldemann in assisting in the operations, and to Drs. Botsford and Glover for the administration of the anesthetics.

Classification

Uterine Fibroids.		
Supravaginal hysterectomy, removal of both appendages	39	
Supravaginal hysterectomy leaving one or both appendages in situ	23	
Vaginal hysterectomy	3	
Myomectomy	14	
		79
Uterine Carcinoma.		
Supravaginal hysterectomy	1	
Abdomino-vaginal pan-hysterectomy	1	
		2
Hysterorrhaphy.		
Retroversions, nulliparous 39, multiparous 48	87	
Suspension after removal of pelvic tumors, etc	15	
		102
Uterine fixation for Procidentia.		
By linen thread to recti muscles	16	
Crile's method (2 in nulliparous patients)	7	
		23
Tubes.		
Left salpingectomy	4	
Right salpingectomy	2	
Double pyosalpinx	3	
Single pyosalpinx	1	
Left hydrosalpinx 3, right hydrosalpinx 1	4	
Double salpingo-öophorectomy, with appendectomy 1, with parovarian cysts 2, dermoid 1	4	
Salpingo-öophorectomy with hysterorrhaphy	18	
Left salpingo-öophorectomy	20	
Right salpingo-öophorectomy	23	
		79
Ovaries.		
Left öophorectomy for large cysts, 1 a multilocular	6	
Right öophorectomy, for large cysts	3	
Left ovarian resection for cystic degeneration	5	
Right ovarian resection for cystic degeneration	11	
Double ovarian resection for cystic degeneration	3	
		28
Cholecystotomy.		
Stones (11, 51, 71, 75, 42, 450, 2, 3, 1	9	
Drainage	3	
		12
Appendectomy.		
Acute	10	
Subacute or chronic	96	
		106
Exploratory Laparotomy.		
Tubercular peritonitis	6	
Carcinoma, inoperable and involving intestines, etc	6	
Inoperable tumor 1, hepatic tumor 1	2	
		14
Intestinal.		
Colostomy, for rectal and annular sigmoid carcinoma	2	
Gastro-enterostomy, for gastric ulcer 1, for pyloric carcinoma 1	2	
Intestinal obstruction, due to adhesion bands	4	
Intestinal resection, carcinoma 2, injured bowel due to adhesion-dissection 1, strangulated ileum in hernia 1	4	
Perforated gastric ulcer repair	1	
		13

Herniotomy.		
Umbilical hernia	3	
Right inguinal	8	
Left inguinal	4	
Ventral hernia	4	
Double inguinal	1	
		20
Kidney.		
Nephrectomy	1	
Nephrorrhaphy	9	
Nephrolithotomy on right kidney for stone size of walnut	1	
		11
Cesarean Sections		19
Breast.		
Carcinoma		
Right	5	
Left	10	
Fibroid tumor of left breast	1	
Recurrent growths	2	
Abscess	1	
		19
Rectum.		
Dilatation	14	
Irritable tabs removed	8	
Polypus removed	8	
Fissure	8	
Fistula	4	
Hemorrhoids	11	
Plastic to restore anal sphincter	2	
		40
Vulvar Plastic.		
Vulva condylomata removed	1	
Vaginal cyst	1	
Amputation of hypertrophied and calcareous labia minora	1	
Urethral carcinoma, carcinoma clitoris	2	
Urethral caruncle	8	
Bartholinian abscess	4	
Hymen imperforate	2	
		14
Vaginal Work on Uterus.		
Dilatation of cervix for sterility	5	
Currettement		
For incomplete abortion	20	
Therapeutic abortion	6	
Endometritis	143	
Cervical polypus	7	
		181
Trachelorrhaphy	66	
Amputation of cervix	19	
		85
Vaginal Plastic Operations.		
Dilatation	1	
Anterior colporrhaphy	5	
Perineorrhaphy	90	
		96
Miscellaneous		40