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A FEW POINTS OF PRACTICAL IMPORTANCE IN OBSTETRICS, GYNECOLOGY AND ABDOMINAL SURGERY*

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The prodigious advancement made in medicine and surgery during the past forty years has made it impossible for one mind to master every department pertaining to the study and practice of our profession. To be as nearly perfect in one department, and to know as much of each of the other branches as time, talent and circumstances will permit, is all the ablest of us can do.

In this Section our attention is limited to obstetrics, gynecology and abdominal surgery. It takes a capable man to be master of one of these branches, but a far more able man to be master of all three. It is the object of your chairman to dwell briefly on a few important points in each, namely, intestinal stasis, painless operations, Roentgen-ray therapy in gynecology and abdominal surgery, the curative effect of radium, the Percy treatment of inoperable carcinoma uteri, the compromise operations of obstetrics, the treatment of placenta praevia, and surgery in the treatment of puerperal eclampsia.

INTESTINAL STASIS

This is unquestionably one of the most important subjects before the medical profession to-day and it is, to a large extent, for the abdominal surgeon to solve most of the details of this comparatively new phase of an old problem, and to corroborate, as far as possible, the epoch-making work and teachings of Sir Arbuthnot Lane. In his address, delivered at the North-East London Post-Graduate College, Nov. 1, 1913, Lane¹ says:

By chronic intestinal stasis I mean that the passage of the contents of the intestinal canal is delayed sufficiently long to result in the production, in the small intestine especially, of an excess of toxic material, and in the absorption into the circulation of a greater quantity of poisonous products than the organs which convert and excrete them are able to deal with.

In consequence there exist in the circulation materials which produce degenerative changes in every single tissue of the body or which lower its resisting power against invasion by deleterious organisms.

Perhaps the best scientific confirmatory evidence I can put forward of the harmful effect of defective drainage, both of

the body as a whole and of the several tissues which contribute to it, has been afforded recently by the remarkable experiments of Carrel in the growth of living tissue, in which he has shown that tissues are immortal, and grow to the greatest advantage if the drainage of their toxic products is carried out effectually.

Owing to unsuitable diet in infancy and to the habitual assumption of the erect position, delay of fecal material takes place in the large bowel, or cesspool, of the gastro-intestinal tract, or, as it can be best described, the "general drainage system of the body." In consequence of this, new membranes or resistances to downward displacement are formed by the crystallization of lines of force upon the surface of the peritoneum along which strain is especially exerted.

Thus he explains the formation of the "bands," "kinks," "folds," "veils" and "membranes" to which his own name and that of Jackson, Treves, Reid and of Jonnesco and Juvara, have been attached. It is the formation of these new structures which explains the occurrence of stricture of the bowels, of appendicitis, of disease of the ovaries, of cancer of the cecum and of the rectum. It further serves to solve the mystery of elongation and dilatation of the duodenum, the spasmodic contraction of the pylorus, the consequent dilatation of the stomach from accumulation of its contents, and the "cardiospasm" of Plummer.

More than this, the changes mentioned above may terminate in ulceration and perforation about the pylorus and lesser curvature of the stomach and even cancer of this organ may result. Or changes may produce infection of the liver and gall-bladder, or lead to the formation of gall-stones, cholecystitis or malignant degeneration.

Other symptoms enumerated by Lane are: the loss of fat; wasting of muscles; degenerative changes in the skin with alteration of its texture and color; the temperature, in uncomplicated cases, is subnormal; stasis always exists in Raynaud's disease; there is mental apathy, stupidity or misery and, occasionally, melancholia or even imbecility and suicidal tendency. Neuralgia and neuritis are frequent; epileptiform tic and headaches are often present; want of control of temper which may lead to misery or even crime. Patients complain of rheumatoid aches and pains in muscles and joints; the thyroid gland wastes; the blood-pressure may be raised or depressed; the breasts show degenerative changes and cancer readily develops in them. Organs prolapse and change in size, shape and weight. The patient becomes short of breath on exertion, resembling asthma; but this may be due to distention of stomach or intestines interfering with the action of the heart. Most of the degenerative changes affecting the heart appear to be due to auto-intoxication. The kidneys may become affected. The hair of the head loses color early and

* Chairman's address, read before the Section on Obstetrics and Gynecology at the Sixty-Fifth Annual Session of the American Medical Association, Atlantic City, June, 1914.

1. Lane, Sir W. Arbuthnot: On Chronic Intestinal Stasis, Brit. Med. Jour., Nov. 1, 1913.

falls out; hair grows in places in which it is ordinarily inconspicuous or absent. The pancreas becomes infected from stasis of the duodenum, resulting in chronic induration, inflammation and finally cancer of this organ. Pancreatic diabetes may ensue. Degenerative diseases of the eye are produced and vary with the degree of auto-intoxication.

According to Lane, the direct changes resulting from the lowered resisting power of the tissues, produced by auto-intoxication, are: infection of the gum, causing pyorrhea alveolaris; tuberculous infection, not produced by direct inoculation; rheumatoid arthritis, which cannot develop except in the presence of defective drainage of the gastro-intestinal tract; infection, directly or indirectly, of the genito-urinary tract, through the blood-stream (by organisms other than tubercle) producing nephritis, cystitis, pyelitis, endometritis, salpingitis, etc.; development of adenomatous tumors in the thyroid gland, or general enlargement of this organ, or of exophthalmic goiter; Still's disease; infections of the skin of a pustular nature; infections of the large intestine by organisms which produce the several varieties of mucous and ulcerative colitis; and ulcerative endocarditis.

Lane states that he has "chosen merely a few obvious, typical, indirect results of the auto-intoxication of chronic intestinal stasis" and that "the point of practical interest . . . is that the drainage scheme be made to work efficiently . . . by mechanical means or by operative interference, and that the resisting power of the tissues of the body is such that they can destroy the organisms or poisons, if not advanced too far or if cancer has not developed;" and, "nothing is more remarkable in the whole range of surgery than the result of the removal of the large bowel in a case of rheumatoid arthritis. The transition is abrupt and startling."

The treatment varies: The non-operative treatment consists in the use of paraffin oil before each meal, the application of a spring support to the abdomen below the umbilicus to keep up the "transverse colon, cecum and other prolapsed viscera," and "to put into the stomach as little food as is likely to decompose and become poisonous in its passage through the intestines."

Operative treatment is resorted to only when the above or other modes of treatment fail and may necessitate the removal of the appendix when it interferes with the lumen of the ileum; or to "short-circuit" the bowel, by dividing the ileum and putting it into the pelvic colon. If the colon is freely movable and pendulous, Lane always removes it down to its junction with the sigmoid; his rule is: *Remove the large bowel, if it may be easily effected, if not, be satisfied with ileocolostomy. Gastro-enterostomy for duodenal distention, even if there is ulceration, is, in Lane's opinion, both unnecessary and harmful. If the ulceration has caused considerable reduction of the lumen of the pylorus, he resorts to gastro-enterostomy. Lane also performs gastro-enterostomy in ulceration of the stomach (in the absence of cancer) in addition to short-circuiting, with or without colectomy. He thus removes the strain from the lesser curve, effectually draining the stomach.*

Those who have carefully studied Lane's work on intestinal stasis, and the case reports of him and his followers, cannot help but be profoundly impressed

by the reports of the results obtained from the operations of gastro-enterostomy, ileocolostomy or colectomy, or of all three, whether in the same subject at the same time or at different times. The profession is by no means unanimous in its opinion as to the real necessity of these heroic operative procedures for the relief of chronic intestinal stasis. Deeper delving and further investigations on the part of the internist and the abdominal surgeon alone will solve the problem.

PAINLESS OPERATIONS

Crile's kinetic theory of shock and its prevention through anoci-association² has found favor with many surgeons. There are, however, not a few who are averse to Crile's new method. The objections most writers offer are, that the time lost in making the injections of novocain and quinin-urea-hydrochlorid is considerable, that the abdominal walls remain more or less rigid, and that the numerous and extensive injections of both drugs, necessary to anesthetize the field of operation, have a tendency to devitalize the structures involved and thus cause delay in union of the parts as well as create a predisposition to the formation of stitch-hole abscesses. Many admit, however, that "anoci-association" is an ideal and practical method. The most serious operations may be performed without the slightest pain and with total absence of shock, while the clinical results, which Crile and his associates have obtained, leave naught to be desired. In 1903 their mortality was a fraction over 4 per cent.; in the last 1,000 operations (not selected cases) the mortality was reduced to 0.8 per cent. These figures speak for themselves and are deserving of serious consideration.

ROENTGEN-RAY THERAPY IN GYNECOLOGY AND ABDOMINAL SURGERY

Many of our surgeons look on roentgenotherapy as the sovereign remedy in uncomplicated cases of uterine hemorrhages. Since, however, in the opinion of some writers, the cure is obtained solely through the destruction of the ovarian follicles, they caution against the use of the Roentgen rays in young and nervous women. Others maintain that in young women the amenorrhea which follows the application of the Roentgen rays, is only transitory; that a permanent sterilization is almost impossible; that in women near the menopause active follicles are rarely present, and destruction of the ovaries is only a precursor to the climacteric period. The appellation, "Roentgen castration," is therefore, a misnomer and incomparable to surgical castration.

The experience of Bumm, Krönig,³ Gaus, Döderlein, Kelly, Burnam, and others with the effects of Roentgen rays on fibroid tumors of the uterus show that uterine hemorrhage may be successfully arrested; that, frequently, the tumors diminish in size; occasionally, even a cure may be effected, though not infrequently, the tumors remain as large as before. All agree that a timely myomectomy or hysterectomy yields the most satisfactory result. The administration of the Roentgen rays is limited to those cases in which extirpation of the tumor, or of the uterus, is inadvisable and relief from hemorrhage or other symptoms alone is sought.

2. Crile, George W.: The Kinetic Theory of Shock and Its Prevention through Anoci-Association (Shockless Operation), Cleveland Med. Jour., 1913, xii, 513.

3. Krönig, B.: Die Strahlentherapie in d. Gynäkologie, Strahlentherap., 1913, v, No. 2.

THE CURATIVE EFFECT OF RADIUM

The curative effect of radium on malignant disease has been vigorously assailed. Judging from the good results obtained from radium, mesothorium and the Roentgen rays, in the hands of such men as Krönig, Gaus, Döderlein, Dominici, Kelly, Burnam, Park, Parker Syms,⁴ and the Ransohoffs, as well as my observations in my own cases and those of others, the scathing adverse criticism of recent date seems uncalled-for and wholly unjustifiable. Some of the favorable results obtained, especially those from radium and mesothorium, are definite and unmistakable; and while it is, perhaps, too soon to speak of the good achieved with these remedies in terms positive and absolute, it is neither fair nor just to condemn them unqualifiedly.

For the present we know that in all operative cases the knife is the best agent for combating malignant disease; and that radium, mesothorium, as well as the Roentgen ray, have proved of unexpected value in some of the inoperable cases, as well as in some of the superficial forms of cancer. Therefore, it behooves us to encourage the work of those who have occupied themselves with determining the value of these remedies in the treatment of malignant disease.

THE PERCY TREATMENT OF INOPERABLE CARCINOMA UTERI

I feel it obligatory to speak a word in favor of this treatment of inoperable carcinoma uteri. Since witnessing the work of Percy in Chicago last fall, I have had an opportunity of seeing two cases of inoperable cancer of the uterus.

In one, Mrs. X, aged 48, coming into my care Nov. 15, 1913, the actual cautery (Percy method without opening the abdominal cavity) was used five different times at intervals of one week, two weeks and four weeks. At the end of that time only a small portion of the body of the uterus remained, and the vagina with the region formerly occupied by the cervix and lower uterine segment, appeared perfectly healthy, but an offensive watery vaginal discharge continued. The patient then received, at intervals of one week, three applications of radium (80 mg.) by Dr. Louis Ransohoff. The result was most marked and highly satisfactory. What there was left of indurated tissue in the vaginal vault, tenderness of the parts and of offensive discharge, disappeared promptly; the patient gained rapidly in weight, and is to-day, so far as the eye can see and the finger can feel, in every respect a healthy woman. Within the last seven weeks she has gained 20 pounds.

The other, Mrs. Y., aged 35, was first seen about the middle of March. This, too, was an inoperable case of carcinoma uteri. Up to this time the Percy method (not opening the abdomen) has been employed three times with, apparently, the same satisfactory results as in the first case. She is now ready for the radium treatment.

THE COMPROMISE OPERATIONS OF OBSTETRICS: THE INDUCTION OF PREMATURE LABOR, THE USE OF THE HIGH FORCEPS, VERSION AND EMBRYOTOMY ON THE LIVING CHILD

In considering the so-called compromise operations, my sole object is to awaken an interest in the new therapy of narrow and contracted pelvis which, after

the doctrine of narrow pelvis had been formulated by Litzmann and Michaelis of Kiel, has been so beautifully worked out by German obstetricians. Briefly stated, this new treatment consists of the test of labor, hebosteotomy, symphyseotomy, or abdominal cesarean section.

The hope has been expressed that the induction of premature labor, the application of the high forceps to a floating head above the pelvic brim, version, or embryotomy on a living child, might be, eventually, eliminated from obstetric practice. This hope has been realized only to a limited extent.

The induction of premature labor is to-day as popular in England as ever and is more favored in some parts of Germany. The high forceps continues, more or less, in favor in France and in this country, and version still enjoys well-deserved popularity. Aseptic midwifery and a more intelligent care of the premature infant have considerably reduced the maternal as well as fetal mortality of artificial labor. Asepsis in the use of high forceps or version has also been of value, though the maternal and fetal mortality has not, thereby, been markedly reduced.

The application of forceps to a freely floating head above the pelvic inlet, or to a head which will not engage, but steadily remains above the brim, is, with the knowledge of to-day, no longer considered good practice. A judicious perseverance in the use of high forceps in cases in which the os is fully dilated, the membranes ruptured and the head fixed at the inlet, is justifiable; but great care must be exercised to avoid injury to the child's head and damage to the soft parts of the mother. Prolonged and violent traction on the head, and the repeated introduction of the forceps by the same attendant or by different operators, cannot be too severely condemned.

Embryotomy on a living child can be regarded as justifiable only in cases of excessive hydrocephalus, extensive spina bifida, double monsters or when the fetal head is impacted in the pelvis and the child's life already seriously endangered, or when there is risk of rupture of the uterus, as in a case of impacted shoulder with excessive attenuation of the lower uterine segment and marked retraction of the contracted fundus. In most of these cases, version is impossible without rupture of the uterus.

Version is justifiable only in those instances in which the head is fixed on the brim of the pelvis, the mother's soft parts are uninjured, the uterus not over-distended, and a reasonable trial of the forceps have failed to deliver. (Early external, or combined version on the head or feet, as in transverse or oblique presentations, is not included here.)

The new therapy of narrow pelvis means: Send your patient to a hospital before labor begins, and give her the benefit of the test-of-labor; if this fails, perform hebosteotomy or, if need be, cesarean section. Under this management 80 per cent. of more than 30,000 patients with narrow pelvis have delivered themselves spontaneously; 15 per cent. of the patients have required hebosteotomy, and in only 5 per cent. was a cesarean section necessary. In all the maternal mortality was 0.1 per cent., and the fetal mortality about 4 per cent.

THE TREATMENT OF PLACENTA PRAEVIA

This is still an open question. Those who advocate abdominal cesarean section in every case of placenta praevia are as mistaken as those who will not admit

4. Syms, Parker: The Prevention and Cure of Cancer, New York State Med. Jour., May, 1913.

that hysterotomy is ever necessary in this condition. The great majority of cases of placenta praevia, it is true, may be favorably treated by the use of the tampon, the rubber dilator, version or slow extraction of the child, so far as the mother is concerned. Not so with the child; the majority, or at least a very large percentage, of the children perish under this treatment. In my opinion abdominal hysterotomy is indicated in every case of placenta praevia in which the hemorrhage cannot be controlled, no matter what the condition of the cervix, the character of the child's presentation or the location of placental implantation. Thus, if the placenta has developed normally, the hemorrhage from a placenta praevia centralis may be readily controlled if the os is dilatable, and the presentation vertex or breech; but hemorrhage may be difficult or impossible of control in a case of placenta praevia lateralis, marginalis or partialis, if the placenta is abnormally developed (for instance when the chorionic villi have penetrated the muscularis) and when, in connection with this condition, the cervix is elongated or the os very rigid, and the presentation of the child such that a correctly placed tampon or the insertion of a rubber balloon will neither control the loss of blood, nor cause obliteration of the cervix or dilatation of the os. Of those obstetricians who put so much stress on the importance of the life of the child when advocating cesarean section for eclampsia, yet strenuously argue against cesarean section in the treatment of certain forms of placenta praevia, permit me to ask: Is not the life of the child to be considered as much, and even more, in cases of placenta praevia than in eclampsia? The child delivered through the abdomen in a case of placenta praevia has a far better chance for life than one born in the same manner in eclampsia.

THE MERITS OF SURGERY IN THE MANAGEMENT OF PUERPERAL ECLAMPSIA

In a recently published paper on eclampsia, read in New York,⁵ we read the following: "The practitioner who seeks to learn from medical literature how the toxemias of pregnancy are best treated, may well feel that he has authority for the most radical treatment on the one hand and for shameful neglect of the patient's interest on the other."

In April, 1913, two papers on the treatment of eclampsia were read before the New York State Medical Society. One advocated vaginal cesarean section as one of the methods of emptying the uterus in the treatment of this disease, and the other maintained that the medical care of puerperal convulsions has given the best results, so far as the mother is concerned.

The writer of the more recently published article refers to these two papers as follows:

Any one reading those two papers on eclampsia would be in serious doubt as to how to treat a case of toxemia, because he is told on the one hand that the only real hope for the eclamptic patient lies in the immediate emptying of the uterus, *although a number will die in spite of this treatment*, and on the other hand he is assured that the only safe method of treatment of eclampsia is by purely medical means, *though a certain number of patients, approximately the same, will be lost by following this method.*⁶

The author of the paper of recent date, just referred to, does not quote a single sentence from either paper

to which he alludes. This we may readily pardon; but when, carelessly or wilfully, misrepresentation is added to seemingly specious argument, it must be corrected. Personally, I welcome and always respectfully consider the severest criticism, and, as this subject is of the greatest importance to child-bearing women, I regard it as my solemn duty to make the correction on this most auspicious occasion.

The author in question states that "*approximately the same number of patients die*" when treated by "*purely medical means*" as when subjected to "*the immediate emptying of the uterus.*" In my paper, to which this writer unquestionably refers, conclusive proof is furnished that, under strictly medical treatment, the collective maternal mortality is really less than 13 per cent., and that the most favorable statistics of the maternal mortality of eclampsia, when surgical means have been employed, do not fall below 28 per cent. No effort is made to prove my statements incorrect; and yet this writer has the temerity to state in the same paper that "*the published results of a large number of cases*" (of eclampsia) "*in which the abdominal cesarean section has been performed, show that the maternal mortality runs somewhere between 40 and 50 per cent.*"⁶

My own paper⁷ on eclampsia, read at Rochester before the New York State Medical Society, in 1913, is an earnest protest against the immediate emptying of the uterus after the first convulsion, or the indiscriminate performance of cesarean section, to the exclusion of every other means, for the relief of puerperal toxemia. The arguments brought forth in my paper have not been refuted, and I reiterate: *Up to the present time, we have no better means of combating puerperal eclampsia than by the hypodermatic use of large doses of veratrum viride, free saline catharsis, hot baths or packs, strict milk diet and, if the patient be in labor, to facilitate its progress with or without the aid of the forceps or version on the feet.* Seeing is believing. Try this treatment and you will be convinced! Let us seek triumph only in truth!

Peterson's⁸ last paper on abdominal cesarean section for eclampsia, appeared in the last issue of the *American Journal of Obstetrics*. Like all of his literary efforts, this paper again reveals his enormous capacity for work, and that he has plenty of time in which to do it. In this paper he furnishes the statistical evidence that the maternal mortality of puerperal eclampsia may be reduced to a little less than 13 per cent. when abdominal cesarean section is performed early; in other words, the maternal mortality of this disease can be made as low with abdominal hysterotomy as when treated by purely medical means.

For the sake of argument, and for the sake of argument only, this statement is accepted. It alone is sufficient to demonstrate that Peterson has, virtually, solved the problem in favor of the medical treatment of eclampsia. Who will now advocate abdominal cesarean section in every case of puerperal convulsions, if the same—and even better results—can be obtained with medical care?

4 West Seventh Street.

7. Zinke, E. Gustav: A Critical Review of the Medical and Surgical Treatment of Puerperal Eclampsia, *Am. Jour. Obstet.*, 1913, lxvii, No. 6.

8. Peterson, Reuben: A Critical Review of 500 Published and Unpublished Cases of Abdominal Cesarean Section for Eclampsia, *Am. Jour. of Obst.*, June, 1914.

5. Bull. New York Lying-In Hosp., January, 1914.

6. Italics my own.