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CERTAIN OUTSTANDING TRENDS IN GYNECOLOGY DURING THE PAST FORTY YEARS

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MY PERSONAL experience goes back forty years. In 1900, although gynecology was already a very active specialty, many technical developments were still in their infancy. For example, in that year, the question of whether the cervical stump remaining after supravaginal hysterectomy for fibroids should be buried, the uterine arteries separately ligated, or the cervical stump drained through the lower end of the abdominal incision was still in active debate, as shown by presentations and discussions taking place at the meetings of various specialist societies. Such well-known figures as Howard A. Kelly, Davenport, and E. Lapthorn Smith of Canada took part in this, and yet, Emil Ries of Chicago, Wertheim of Vienna and a few others, had successfully performed radical abdominal removal for carcinoma of the cervix several years previously.

During this same period, violent discussions were frequent as to whether acute salpingitis should be operated upon in the "hot stage" or allowed to go to the interval before operative intervention was undertaken. At operation it was also debated whether these patients should be drained abdominally. A number of lives were needlessly sacrificed by the less conservative surgeons who, without selection, routinely performed operations on acute pus tubes or even acute salpingitis.

The treatment of cystocele, rectocele, and prolapse was likewise in a very unsatisfactory state. Particularly the older group of operators was satisfied to resect the anterior and posterior mucosa for cystocele and rectocele and suture the superficial defects they had created, without regard for the underlying fascial and muscular structures. Prolapse was almost universally treated by ventrofixation in addition to vaginal plastic, although some operators utilized the round ligaments with the hope of giving additional support by placing the uterus in anteflexion. The results with rectocele were much better than with cystocele. It was still the custom to perform multiple operations such as nephropexy with appendectomy (through the same incision), anterior and posterior colporrhaphy and ventrofixation at the same session on patients suffering from enteroptosis.

Although the technique of transabdominal operation was in the formative stage, many operators, in fact more than today, had developed great skill in the vaginal approach. This was due to the fact that until improvements in aseptic technique had rendered transabdominal section less dangerous, the mortality by the vaginal route was far smaller. Vaginal hysterectomy including removal of large fibroids by morcellation was frequently resorted to. Ovarian cysts and inflamed adnexa, as well as ectopic gestations, were successfully removed from below.

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In passing, I should mention that the question as to whether a ruptured ectopic pregnancy should be operated upon in the tragic stage was as yet an open one. This was largely due to our inability to restore exsanguinated patients by means of blood transfusion, the sole available remedies consisting of intravenous normal saline solution, exaggerated Trendelenburg position, bandaging of the extremities, and sedation for shock.

The treatment for sterility and dysmenorrhea was on the whole purely mechanical. Opening of the cervical canal by the Pozzi procedure and straightening of the canal by means of the Dudley operation were the rage. No means of recognizing tubal obstruction were available except by opening the abdomen. The stem pessary was freely employed for the relief of dysmenorrhea, sometimes followed by severe pelvic infections. A few pioneers experimented with Fliess's method of cauterizing the nasal mucosa to relieve dysmenorrhea.

In the same year, 1900, A. W. Johnstone, apparently unchallenged, spoke as follows at a meeting of the American Gynecological Society: "There is not one iota of proof that the ovary has any other function than the manufacture of eggs." Eleven years later, such authorities as J. M. Baldy and J. Monro Kerr, still voiced somewhat similar sentiments.

In the second decade of the twentieth century, a great change in viewpoint is noted. Purely mechanistic concepts were in part replaced by greater reliance on a foundation of pathology. A number of voices were raised modestly in the wilderness in favor of a more physiologic point of view. This evidently was sensed by Dr. Robert L. Dickinson when he delivered his presidential address before the American Gynecological Society in 1920. He referred to the gynecologist as follows: "Surgery we have promoted. But if we be just surgeons, by surgeons we may be displaced." The gynecologist need not blush for the advances that he has inaugurated before and since 1920; these advances are of the utmost importance in every branch of medicine.

In the intervening twenty years between 1900 and 1920, technical procedures were standardized. The well-trained gynecologist the world over performed supravaginal hysterectomy for fibroids, radical hysterectomy for carcinoma of the cervix, removal of ovarian neoplasm, salpingectomy or salpingo-oophorectomy for ectopic gestation, as well as other intra-abdominal operations in almost identical fashion. There remained few if any who still advised operation for adnexal diseases in the acute stage.

During the search for improvement in the relief of cystocele, rectocele, and prolapse, intensive study of pelvic anatomy had progressed. Two schools of thought resulted: The one relied mainly on muscular support (the levators and the perineal muscles); the other concluded that the fascial and connective tissue strands (base of the parametria, pubocervical tissues) gave the main support. In consequence of these anatomic researches, the operations practiced for prolapse included sutures of the levator plates, shortening of the parametria, vaginal

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hysterectomy, interposition of the uterus, and various abdominal or vaginal fixations. The use of the Manchester operation was still limited mainly to the English school.

In the interim, the gynecologic armamentarium as well as that of the rest of the profession had been greatly enriched by many new discoveries. I mention only a few: The Wassermann reaction enabled us to diagnose syphilis even in its latent stages. Blood transfusion, both by the direct and indirect method, robbed ruptured tubal pregnancy of much of its dangers. The discovery and the use of x-ray and of radium proved a boon in the treatment of menorrhagia, of certain uterine fibroids, and of carcinoma of the cervix. A real renaissance of physiotherapy developed, applicable in gynecology to the treatment of chronic adnexal diseases. Endocrinology, which later on was to grow and spread with the rapidity of a weed, was still a modest bud just poking its head above ground and yet attracting the interest of those in search of the new and promising. Over-optimists were already recording wonder cures with "endocrine products," since proved to be inert and now relegated to oblivion.

World-wide movements for promoting and popularizing the practice of contraception, antenatal care, recognition of early cancer were developing and helped to educate the laity. With all due modesty, we may state that the gynecologist continued to stay in the van of progress, fully utilizing the nova available.

A survey of the present must lack perspective and, therefore, proves difficult, and in the light of tomorrow, perhaps misleading.

The trend during this last decade, at least for the intellectually honest and best informed, is largely away from operative measures. This applies, for example, to the treatment of carcinoma of the cervix in which radiation therapy by means of x-ray and radium has displaced surgery except in the hands of a few. Carcinoma of the corpus uteri, however, is still treated mainly by hysterectomy. In the treatments of fibroids of the uterus, the indications between the choice of operation or radiotherapy have become clear-cut and well defined, based largely upon the findings during preliminary exploratory curettage.

A great improvement has taken place in the early cure of gonorrheal diseases and some of the more newly classified venereal infections such as lymphogranuloma and granuloma venereum. Complete cure of gonorrhea in its earliest stages, before it has reached the tubes and peritoneum, can be obtained by hyperthermia. By means of chemotherapy with sulfanilamide and its congeners, not only gonorrheal but also streptococcal infection has been arrested and cured in both the early and later stages of the disease. In consequence, the well-trained gynecologist limits operation to chronic recurrent adnexal inflammations.

For the cure of prolapse, the English Manchester (Donald, or misnamed Fothergill) operation has made major strides in the United States and promises to displace other techniques in the near future.

Mechanical (tubal) sterility can now be recognized or excluded by means of Rubin's insufflation test, and the location of atresias or stric-

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tures determined by uterosalpingography with harmless water-soluble and readily absorbed radio-opaque media.

The preoperative diagnosis of functionally active ovarian tumors is now feasible based on their clinical symptoms or the biologic changes they produce. These growths include arrhenoblastoma, granulosa, and theca cell tumors, all of the ovary, as well as chorionepithelioma, wherever it may originate or metastasize.

Endocrinology has become an important discipline of medical science. In the development of this branch of medicine, gynecologists have taken a prominent part. It is now accepted that functional diseases of the female may originate not only in the ovary but also in the pituitary, adrenal, or thyroid glands. Our point of view concerning the significance, importance, and treatment of functional amenorrhea, bleeding, sterility, and dysmenorrhea has been entirely revised, but doubtless will undergo much further revision before stabilization is arrived at. In bleeding, for example, the uterine mucosa is regarded merely as a labile and changeable indicator of ovarian and other endocrine activity. Much advance can be recorded in the recognition of underlying causes which produce these functional disturbances.

Treatment is in a most chaotic stage; this, in spite of the fact that pure crystalline estrogens, progestational products, and androgens are now available, supplemented by a host of similarly acting synthetic products. The gonadotropic substances remain in an impure state and are as yet of little practical value. Striking results in the treatment of the menopause have been obtained. The huge and cumbersome literature, particularly that of purely clinical nature, which has been accumulating rapidly, will doubtless eventually be forgotten.

The advances of the last twenty years have been aided by a tendency toward accuracy and control, as shown by reliance on investigative machinery, by the employment of rigid statistical methods, by the development, with the aid of physiologists and biochemists, of standardization of bio-assay and chemical assays. The employment of primates, particularly the higher monkeys, in some researches, has made application of the results obtained more readily transferable to the human being.

What advances the future has in store, I would not venture to predict. That gynecology and the other branches of medicine steadily will progress seems assured.

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