

"Classified" information: Veasy C. Buttram Jr, MD

Veasy C. Buttram Jr, MD, is known as an influential innovator in the classification of endometriosis. William E. Gibbons, MD, interviewed Dr Buttram about the origins of this pivotal work.



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WEG: Your classification of endometriosis has had a significant effect on how we think about fertility therapy for women with endometriosis and how we approach their surgery. Why did you think there was a need for a classification scheme?

VCB: Prior to 1973, numerous studies reported that surgery effectively improved pregnancy rates for patients with endometriosis. However, the severity of disease at the time of surgery was not often recorded. Therefore, the reported pregnancy rates, which ranged from 13% to 93%, were difficult to interpret.

To document that the beneficial effect of surgery for infertile women was dependent upon the severity of the disease, my colleagues and I designed a classification scheme (later to be known as the Acosta classification) that graded endometriosis as mild, moderate, or severe. Of 107 patients who underwent major surgery for endometriosis, the postoperative pregnancy rates were 75%, 50%, and 33%, respectively.

WEG: Did the classification theory stem from your study of outcomes after ovarian wedge resections, which was one of your most significant contributions to the medical literature in the 1970s?

VCB: My article "Post-ovarian Wedge Resection Adhesive Disease"¹ was influential in changing how patients were treated. Before clomiphene citrate became available for induction of ovulation in patients with polycystic ovary syndrome, we frequently performed bilateral ovarian wedge resections. In the early 1970s, I began to see many patients who developed significant postoperative ovarian adhesions and infertility. We studied 173

patients who had undergone bilateral ovarian wedge resection. At least one-third of the patients developed significant ovarian adhesions, demonstrating that the ovaries were vulnerable to surgical trauma.

I submitted these data to *Fertility and Sterility*. The reviewers refused to accept the paper for publication. However, Luigi Mastroianni, then the journal's Editor-in-Chief, used his position to overrule his reviewers and publish the article.

These findings were important for a number of reasons. Physicians gradually stopped performing ovarian wedge resections and instead began using microsurgical techniques when operating on the ovary. We used this knowledge to design a classification of endometriosis.

WEG: What were your thoughts as you collaborated with colleagues to design the Acosta classification?

VCB: Classification was based on the likelihood of postoperative fertility. Although we were sure that endometriosis caused infertility, we did not know how. We thought that to improve a woman's chance of conception, peritoneal endometriosis, ovarian endometriomas, and adnexal adhesions had to be removed or destroyed.

On the other hand, we knew that the ovaries were very vulnerable to surgical trauma. A high percentage of patients who experienced surgical trauma to the ovary developed postoperative ovarian adhesions. These adhesions could cause infertility by mechanically interfering with sperm-egg interaction.

We concluded that removal of peritoneal endometriosis should give us a postoperative pregnancy rate much higher than that achieved after removal of an

A PET PROJECT FOR DR BUTTRAM: NEW ASSOCIATION HEADQUARTERS

WEG: You were president of the American Society for Reproductive Medicine (ASRM) from 1986 to 1987, when it was still called the American Fertility Society (AFS). What do you consider your most important contribution to the Society?

VCB: I made my greatest contribution to the Society as a past president. I had been to the office in Birmingham, Alabama, on several occasions. The rented space was inadequate and the employees were worried that the office would be moved to Washington, DC.

In 1990, then-President Paul McDonough asked me to begin a fundraising endeavor for the AFS. I offered to create a development fund if the AFS were willing to buy a building in Birmingham that was large enough to accommodate future growth. Paul was surprised, but he called me the next day with the go-ahead.

I sent a letter to AFS members explaining the goals of the development fund and how they could get involved. Within a few months, I received contributions from individual members, pharmaceutical companies, and *Fertility and Sterility*. Altogether, we raised about \$1 million. In 1991, we bought a beautiful 10-year-old, 2-story building with 44,600 sq ft of space that now houses 26 employees.

ovarian endometrioma (or lysis of adnexal adhesions). On this basis, we designated peritoneal endometriosis as "mild disease" and ovarian endometriosis as "moderate disease." Adnexal adhesions were usually indicative of moderate or severe disease. We didn't—and still don't—have information that tells us that ovarian endometriosis is more likely to cause infertility than peritoneal disease.

WEG: You were the main author of the Revised American Fertility Society Classification of Endometriosis,² published in 1985. Tell us how this came to be.

VCB: There were 2 classification schemes for endometriosis being used at the time, which created a problem for American Fertility Society (AFS) members.^{3,4} It became apparent that a universally accepted standard classification was needed. To this end, I chaired an AFS committee appointed in 1978 to create a universal classification system. The resulting classification was published in 1979. A number system was used to grade endometriosis using many variables, including unilateral disease. Ovarian disease and adnexal adhesions were given more weighted points than peritoneal disease. However, with time this classification also had a few pitfalls. A new scheme was designed and approved by the AFS committee in 1985.²

WEG: How has the surgical therapy of endometriosis changed or evolved over your career?

VCB: When I first started performing surgery for endometriosis, I had to perform

a laparotomy to make a definitive diagnosis. Fortunately, endoscopy became available. With time, we became comfortable using cautery, and then lasers, to obtain the desired surgical effect: removal of peritoneal implants, lysis of adhesions, and removal of ovarian endometriomas. Physicians could see the endometrial implants and endometriomas better with endoscopy than with open laparotomy; thus, we became more skilled at documenting and classifying endometriosis.

WEG: What have been the most important developments in treating endometriosis and what advancements will we see?

VCB: Endoscopy and endoscopic surgery have dramatically changed the surgical treatment of infertile women who have endometriosis, pelvic adhesive disease, tubal disease, ectopic pregnancy, or intrauterine adhesions.

There are several challenges for the future. One is to develop better surgical techniques so that there is little (if any) risk of postoperative adhesions. Additionally, we need to discover what causes endometriosis and how can it be detected *before* it interferes with conception. ■

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