Revised American Society for Reproductive Medicine classification of endometriosis: 1996

American Society for Reproductive Medicine*†

Birmingham, Alabama

Endometriosis Classification and Infertility

Numerous classifications have been proposed for endometriosis (1). The American Fertility Society (AFS) original and revised (revised AFS) classifications are unique because they provide a standardized form for recording pathologic findings and because they assign scalar values to disease status in an effort to predict probability of pregnancy following treatment (2, 3). Whereas efforts have been made to correlate pain with both endometriosis location and severity, few have attempted to validate the AFS classifications as predictors of fertility (4–7).

The American Fertility Society, renamed the American Society for Reproductive Medicine (ASRM) in 1995, appointed an Endometriosis Classification Subcommittee to assess formally the current revised AFS classification. The Subcommittee contacted numerous physicians to obtain data from infertile patients who were treated for endometriosis. The goal was to evaluate the dose-response relationship between pregnancy and the revised AFS classification score. Although trends were apparent, the revised AFS was not found to be a sensitive predictor of pregnancy following treatment (8). Adjusting the points scores and the cutoff scores for disease stage

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did not enhance the sensitivity of the revised AFS classification.

Although the data are not supportive of a dose-response relationship, the Subcommittee does not recommend arbitrary changes in the revised-AFS classification system, which provides a means of clearly documenting extent and location of disease. Information is accumulating to suggest that the endometriotic implants morphological appearance and biologic activity may have an impact on fertility (9–11). The Subcommittee has incorporated into the classification a means to record information on the disease morphology (see form on pages 819–20). Color photographs are provided to assure consistency in describing the disease appearance.
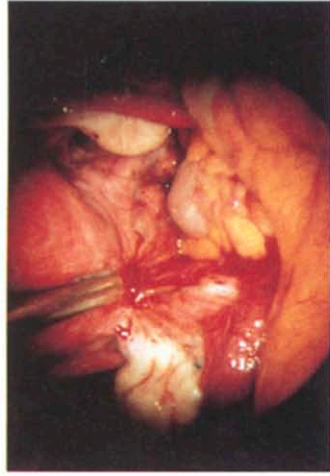
Concern over the reproducibility of the scoring system is directed at the variability in assessing ovarian endometriosis and cul-de-sac obliteration. To improve accuracy of the scoring system, ovarian endometriotic cyst should be confirmed by histology or by the presence of the following features: [1] cyst diameter < 12 cm; [2] adhesion to pelvic side wall and/or broad ligament; [3] endometriosis on surface of ovary; and [4] tarry, thick, chocolate-colored fluid content (12). Cul-de-sac obliteration should be considered partial if endometriosis or adhesions have obliterated part of the cul-de-sac, but some normal peritoneum is visible below the uterosacral ligaments. Complete obliteration of the cul-de-sac exists when no peritoneum is visible below the uterosacral ligaments.

The morphology of peritoneal and ovarian implants should be categorized as red (red, red-pink, and clear lesions), white (white, yellow-brown, and peritoneal defects), and black (black and blue lesions) (13) (Fig. 1). The percentage of surface involvement of each implant type should be documented. Accumulation of data with the current point
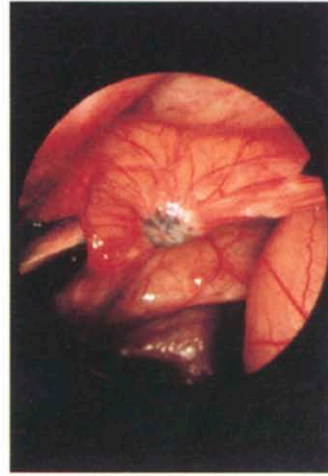
Clear

Red-pink

Red

Yellow-Brown
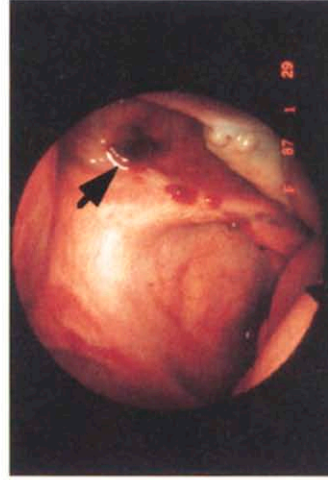
Peritoneal defect

White

Blue

Black

Figure 1 The top, middle, and bottom series are representative of red, white, and black implants, respectively. (Photographs courtesy of Jacques G. Donnez, M.D., Ph.D.; Daniel C. Martin, M.D.; and Robert S. Schenken, M.D.)

AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE
REVISED CLASSIFICATION OF ENDOMETRIOSIS

Patient's Name _____ Date _____

Stage I (Minimal) - 1-5
Stage II (Mild) - 6-15
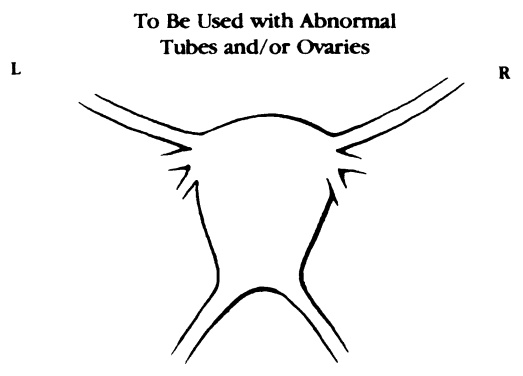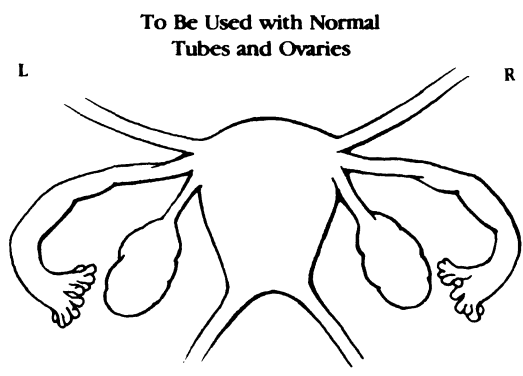Stage III (Moderate) - 16-40
Stage IV (Severe) - >40
Total _____

Laparoscopy _____ Laparotomy _____ Photography _____
Recommended Treatment _____
_____
_____
Prognosis _____

PERITONEUM	ENDOMETRIOSIS		<1cm	1-3cm	>3cm
		Superficial	1	2	4
		Deep	2	4	6
OVARY	R	Superficial	1	2	4
		Deep	4	16	20
	L	Superficial	1	2	4
		Deep	4	16	20

	POSTERIOR CULDESAC OBLITERATION	Partial		Complete	
		4		40	

	ADHESIONS		<1/3 Enclosure	1/3-2/3 Enclosure	>2/3 Enclosure
OVARY	R	Filmy	1	2	4
		Dense	4	8	16
	L	Filmy	1	2	4
		Dense	4	8	16
TUBE	R	Filmy	1	2	4
		Dense	4*	8*	16
	L	Filmy	1	2	4
		Dense	4*	8*	16

*If the fimbriated end of the fallopian tube is completely enclosed, change the point assignment to 16.

Denote appearance of superficial implant types as red [(R), red, red-pink, flamelike, vesicular blobs, clear vesicles], white [(W), opacifications, peritoneal defects, yellow-brown], or black [(B) black, hemosiderin deposits, blue]. Denote percent of total described as R___%, W___% and B___%. Total should equal 100%.

Additional Endometriosis: _____
_____
_____
_____

Associated Pathology: _____
_____
_____
_____

To Be Used with Normal
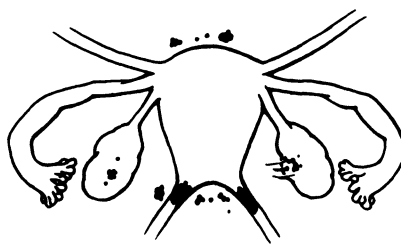Tubes and Ovaries

L   R

To Be Used with Abnormal
Tubes and/or Ovaries

L   R

STAGE I (MINIMAL)

PERITONEUM
Superficial Endo − 1-3cm · 2
R. OVARY
Superficial Endo − < 1cm · 1
Filmy Adhesions − < 1/3 · 1
TOTAL POINTS 4

STAGE II (MILD)

PERITONEUM
Deep Endo − >3cm · 6
R. OVARY
Superficial Endo − < 1cm · 1
Filmy Adhesions − < 1/3 · 1
L. OVARY
Superficial Endo − <1cm · 1
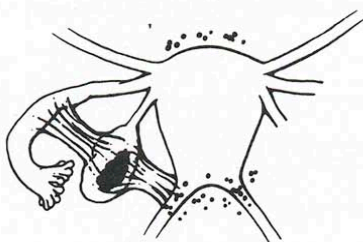TOTAL POINTS 9

STAGE III (MODERATE)

PERITONEUM
Deep Endo − >3cm · 6
CULDESAC
Partial Obliteration · 4
L. OVARY
Deep Endo − 1-3cm · 16
TOTAL POINTS 26

STAGE III (MODERATE)
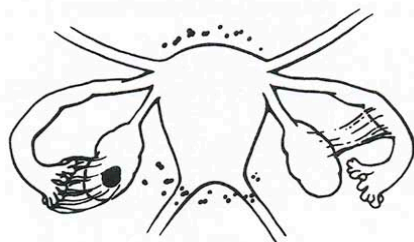
PERITONEUM
Superficial Endo − >3cm · 4
R. TUBE
Filmy Adhesions − < 1/3 · 1
R. OVARY
Filmy Adhesions − < 1/3 · 1
L. TUBE
Dense Adhesions − < 1/3 · 16*
L. OVARY
Deep Endo − <1 cm · 4
Dense Adhesions − < 1/3 · 4
TOTAL POINTS 30

STAGE IV (SEVERE)

PERITONEUM
Superficial Endo − >3cm · 4
L. OVARY
Deep Endo − 1-3cm · 32**
Dense Adhesions − < 1/3 · 8**
L. TUBE
Dense Adhesions − < 1/3 · 8**
TOTAL POINTS 52

*Point assignment changed to 16
**Point assignment doubled

STAGE IV (SEVERE)
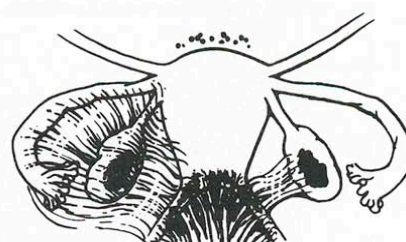
PERITONEUM
Deep Endo − >3cm · 6
CULDESAC
Complete Obliteration · 40
R. OVARY
Deep Endo − 1-3cm · 16
Dense Adhesions − < 1/3 · 4
L. TUBE
Dense Adhesions − >2/3 · 16
L. OVARY
Deep Endo − 1-3cm · 16
Dense Adhesions − >2/3 · 16
TOTAL POINTS 114

Determination of the stage or degree of endometrial involvement is based on a weighted point system. Distribution of points has been arbitrarily determined and may require further revision or refinement as knowledge of the disease increases.

To ensure complete evaluation, inspection of the pelvis in a clockwise or counterclockwise fashion is encouraged. Number, size and location of endometrial implants, plaques, endometriomas and/or adhesions are noted. For example, five separate 0.5cm superficial implants on the peritoneum (2.5 cm total) would be assigned 2 points. (The surface of the uterus should be considered peritoneum.) The severity of the endometriosis or adhesions should be assigned the highest score only for peritoneum, ovary, tube or culdesac. For example, a 4cm superficial and a 2cm deep implant of the peritoneum should be given a score of 6 (not 8). A 4cm deep endometrioma of the ovary associated with more than 3cm of superficial disease should be scored 20 (not 24).

In those patients with only one adenexa, points applied to disease of the remaining tube and ovary should be multipled by two. **Points assigned may be circled and totaled. Aggregation of points indicates stage of disease (minimal, mild, moderate, or severe).

The presence of endometriosis of the bowel, urinary tract, fallopian tube, vagina, cervix, skin etc., should be documented under "additional endometriosis." Other pathology such as tubal occlusion, leiomyomata, uterine anomaly, etc., should be documented under "associated pathology." All pathology should be depicted as specifically as possible on the sketch of pelvic organs, and means of observation (laparoscopy or laparotomy) should be noted.

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scores and the morphological description may permit future development of a classification that accurately predicts the probability of pregnancy following treatment.

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