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Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

FIGO COMMITTEE ON GYNECOLOGIC ONCOLOGY

Revised FIGO staging for carcinoma of the vulva, cervix, and endometrium

The first rules for classification and staging of female genital cancers adopted by the International Federation of Gynecology and Obstetrics (FIGO) in 1958 date back to the end of the 1920s and the work carried out by the Radiological Sub-Commission of the Cancer Commission of the Health Organization of the League of Nations.

Since the 1930s, gynecologic oncologists have strived for a common language to facilitate making diagnoses and planning treatment for their patients. The aim was, and still is, to reach a uniform/unified terminology that is able to provide appropriate prognosis to the patients and to enhance the exchange of information among health professionals.

FIGO was the first organization to develop its own classification and staging system. Subsequently, in 1966, the International Union Against Cancer (UICC) published its own staging system, followed by the American Joint Commission on Cancer (AJCC) in 1976. Since then, one of the aims of these 3 organizations has been to review any changes to the different staging systems, and to jointly agree upon them.

Cancer staging is in constant evolution because it must adapt to significant scientific changes. In the last decades, medical research and practice, particularly in the field of oncology, have shown explosive growth. In the light of these breakthroughs, the scientific community—with the support of FIGO as well as other international scientific societies and agencies—felt that the time had come to revise the staging of some of the gynecologic cancers.

However, difficulties always arise each time the scientific community puts forward revisions to cancer stagings. In general, these are due to the interpretation of evidence-based data and the impact such data can have on the staging itself.

Cancers of the female genital tract are surgically staged, with the exceptions of staging for cervical cancer, which is clinical, and staging for gestational trophoblastic neoplasia (GTN), which combines clinical and biological aspects. Mainly because of epidemiological reasons rather than scientific rationale, cervical cancer is still clinically staged.

Over the past 3 years, much time and attention have been devoted to reviewing proposals concerning cancer of the vulva, cervix uteri, and corpus uteri, which were revised in 1988, 1994, and 1988, respectively. Ovarian cancer staging has not been tackled. It is the aim of the FIGO Committee on Gynecologic Oncology to update the staging of this disease in the next 3 years.

The revision process started under the leadership of the former Chairperson of the FIGO Committee on Gynecologic Oncology, Professor Hextan Ngan, and has since continued under my chairmanship.

Two seminars were organized. One was held during the 11th Biennial Meeting of the International Gynecologic Cancer Society (IGCS), held from October 14–18, 2006, in Santa Monica, USA; the other was held during the 18th FIGO World Congress, November 5–10, 2006, in Kuala Lumpur, Malaysia. The discussions and debates during the seminars led to some proposed changes that were presented and discussed at the Annual Meeting of the TNM Prognostic Factors Core Group, held

in Geneva in May, 2007. These proposals were, once again, circulated and thoroughly discussed among the members of the FIGO Committee.

In the final phase of the revision process, I invited international scientific societies and agencies specializing in research and treatment of female malignancies to take part in the process. The IGCS, the Gynecologic Cancer Intergroup (GCGI), the American Society of Gynecologic Oncologists (SGO), and the AJCC, together with the International Society of Gynecological Pathologists (ISGyP), agreed to collaborate and formed the Enlarged Committee (see List of Members).

The Enlarged Committee met for the first time in Tampa, Florida, USA, at the beginning of March 2008. The document with the amendments to the staging for vulvar, cervical, and endometrial cancer was extensively discussed by the attendees. In the following months the members of the Enlarged Committee circulated further comments and amended the 3 stagings until unanimous agreement on a final document was reached.

This consensus document was presented at the TNM UICC Core Group meeting in Geneva at the beginning of May 2008, where it was approved by both the UICC and AJCC with only minor changes. In early September 2008, the document containing the new stagings for vulvar, cervical, and endometrial cancer was submitted to the FIGO Executive Board, whose members officially approved it.

Following the amendments and what has emerged over the past 3 years from the discussions and debates, various international experts—who were actively involved in the revision process—were approached to write accompanying commentaries to provide the scientific community with opinions and insights on the revisions to the staging of these 3 diseases. The commentaries are published as Special Communications to accompany the revised staging in the May 2009 issue.

No doubt vulvar cancer has undergone major changes following the worldwide debate based on invasion and size, as well as type and number of lymph nodal involvement. Professor Neville F. Hacker has provided a general outline on the staging for vulvar cancer and the proposed changes.

For cervical cancer, Dr Franco Odicino and I have prepared a commentary on the changes made to its staging. Although this staging has already been thoroughly revised in the past, the debate is still open in the scientific community regarding different aspects of the staging, the most important of which is whether it should be clinically or surgically staged. Although the changes made to the staging for endometrial cancer are minor, they are extremely significant. They are linked to the data provided by the FIGO Annual Report and confirmed by other publications. All these data better define the clinically relevant risk strata. Dr William Creasman, one of the promoters of the changes made to endometrial cancer staging, has written a commentary on the revised staging. I have also asked Drs. Andrea Mariani, Sean C. Dowdy, and Karl C. Podratz to produce an additional commentary in order to provide the readers with a different viewpoint. The FIGO Committee welcomes this objective criticism

which hopefully will engage the whole scientific community to further and more thorough revisions of the recommendations on endometrial cancer staging. I do hope that despite the shortcomings a cancer staging inevitably has, we are indeed committed to provide better guidance to physicians involved in the field of gynecologic oncology in low- as well as high-resource settings.

Table 1
Carcinoma of the vulva.

| | |
|-----------|--|
| Stage I | Tumor confined to the vulva |
| IA | Lesions ≤ 2 cm in size, confined to the vulva or perineum and with stromal invasion ≤ 1.0 mm*, no nodal metastasis |
| IB | Lesions > 2 cm in size or with stromal invasion > 1.0 mm*, confined to the vulva or perineum, with negative nodes |
| Stage II | Tumor of any size with extension to adjacent perineal structures (1/3 lower urethra, 1/3 lower vagina, anus) with negative nodes |
| Stage III | Tumor of any size with or without extension to adjacent perineal structures (1/3 lower urethra, 1/3 lower vagina, anus) with positive inguino-femoral lymph nodes |
| IIIA | (i) With 1 lymph node metastasis (≥ 5 mm), or (ii) 1–2 lymph node metastasis(es) (< 5 mm) |
| IIIB | (i) With 2 or more lymph node metastases (≥ 5 mm), or (ii) 3 or more lymph node metastases (< 5 mm) |
| IIIC | With positive nodes with extracapsular spread |
| Stage IV | Tumor invades other regional (2/3 upper urethra, 2/3 upper vagina), or distant structures |
| IVA | Tumor invades any of the following: (i) upper urethral and/or vaginal mucosa, bladder mucosa, rectal mucosa, or fixed to pelvic bone, or (ii) fixed or ulcerated inguino-femoral lymph nodes |
| IVB | Any distant metastasis including pelvic lymph nodes |

*The depth of invasion is defined as the measurement of the tumor from the epithelial-stromal junction of the adjacent most superficial dermal papilla to the deepest point of invasion.

Table 2
Carcinoma of the cervix uteri.

| | |
|-----------|--|
| Stage I | The carcinoma is strictly confined to the cervix (extension to the corpus would be disregarded) |
| IA | Invasive carcinoma which can be diagnosed only by microscopy, with deepest invasion ≤ 5 mm and largest extension ≥ 7 mm |
| IA1 | Measured stromal invasion of ≤ 3.0 mm in depth and extension of ≤ 7.0 mm |
| IA2 | Measured stromal invasion of > 3.0 mm and not > 5.0 mm with an extension of not > 7.0 mm |
| IB | Clinically visible lesions limited to the cervix uteri or pre-clinical cancers greater than stage IA * |
| IB1 | Clinically visible lesion ≤ 4.0 cm in greatest dimension |
| IB2 | Clinically visible lesion > 4.0 cm in greatest dimension |
| Stage II | Cervical carcinoma invades beyond the uterus, but not to the pelvic wall or to the lower third of the vagina |
| IIA | Without parametrial invasion |
| IIA1 | Clinically visible lesion ≤ 4.0 cm in greatest dimension |
| IIA2 | Clinically visible lesion > 4 cm in greatest dimension |
| IIB | With obvious parametrial invasion |
| Stage III | The tumor extends to the pelvic wall and/or involves lower third of the vagina and/or causes hydronephrosis or non-functioning kidney ** |
| IIIA | Tumor involves lower third of the vagina, with no extension to the pelvic wall |
| IIIB | Extension to the pelvic wall and/or hydronephrosis or non-functioning kidney |
| Stage IV | The carcinoma has extended beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum. A bullous edema, as such, does not permit a case to be allotted to Stage IV |
| IVA | Spread of the growth to adjacent organs |
| IVB | Spread to distant organs |

*All macroscopically visible lesions—even with superficial invasion—are allotted to stage IB carcinomas. Invasion is limited to a measured stromal invasion with a maximal depth of 5.00 mm and a horizontal extension of not > 7.00 mm. Depth of invasion should not be > 5.00 mm taken from the base of the epithelium of the original tissue—superficial or glandular. The depth of invasion should always be reported in mm, even in those cases with “early (minimal) stromal invasion” (~ 1 mm). The involvement of vascular/lymphatic spaces should not change the stage allotment.

**On rectal examination, there is no cancer-free space between the tumor and the pelvic wall. All cases with hydronephrosis or non-functioning kidney are included, unless they are known to be due to another cause.

Table 3
Carcinoma of the endometrium.

| | |
|------------|--|
| Stage I* | Tumor confined to the corpus uteri |
| IA* | No or less than half myometrial invasion |
| IB* | Invasion equal to or more than half of the myometrium |
| Stage II* | Tumor invades cervical stroma, but does not extend beyond the uterus** |
| Stage III* | Local and/or regional spread of the tumor |
| IIIA* | Tumor invades the serosa of the corpus uteri and/or adnexae [#] |
| IIIB* | Vaginal and/or parametrial involvement [#] |
| IIIC* | Metastases to pelvic and/or para-aortic lymph nodes [#] |
| IIIC1* | Positive pelvic nodes |
| IIIC2* | Positive para-aortic lymph nodes with or without positive pelvic lymph nodes |
| Stage IV* | Tumor invades bladder and/or bowel mucosa, and/or distant metastases |
| IVA* | Tumor invasion of bladder and/or bowel mucosa |
| IVB* | Distant metastases, including intra-abdominal metastases and/or inguinal lymph nodes |

*Either G1, G2, or G3.

**Endocervical glandular involvement only should be considered as Stage I and no longer as Stage II.

[#]Positive cytology has to be reported separately without changing the stage.

List of members

The Enlarged Committee is composed of the following members:

FIGO Committee on Gynecologic Oncology:

Sergio Pecorelli, Italy, Chairperson; Lynette Denny, South Africa, Co-Chairperson; Hextan Ngan, China, Past Chairperson; Neville Hacker, Australia, member; Adriana Bermudez, Argentina, member; David Mutch, USA, member.

Scott McMeekin, USA, American Joint Commission on Cancer (AJCC).

Edgar Petru, Austria, Gynecologic Cancer Intergroup (GCIG).

Jaime Prat, Spain, International Society of Gynecological Pathologists (ISGyP).

Adriana Bermudez, Argentina, International Gynecologic Cancer Society (IGCS).

David Mutch, USA, Society of Gynecologic Oncologists (SGO).

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