

5. Klassifikation og stadieinddeling[1]

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5.1. Kutane melanomer

Tabel 5.1. AJCCs (7th ed.) staging of Melanoma of the Skin

Definitions of TNM

Primary Tumor (T)	
TX	Primary tumor cannot be assessed (e.g., curettaged or severely regressed melanoma)
T0	No evidence of primary tumor
Tis	Melanoma in situ
T1	Melanomas 1.0 mm or less in thickness
T2	Melanomas 1.01 - 2.0 mm
T3	Melanomas 2.01 - 4.0 mm
T4	Melanomas more than 4.0 mm

Note: a and b subcategories of T are assigned based on ulceration and number of mitoses per mm² as shown below:

<i>T classification: Thickness (mm)</i>	<i>Ulceration Status/Mitoses</i>
T1 ≤ 1.0	a: w/o ulceration and mitosis <1/mm ² b: with ulceration or mitoses ≥1/mm ²
T2 1.01-2.0	a: w/o ulceration b: with ulceration
T3 2.01-4.0	a: w/o ulceration b: with ulceration
T4 >4.0	a: w/o ulceration b: with ulceration

Regional Lymph Nodes (N)	
NX	Patients in whom the regional nodes cannot be assessed (e.g., previously removed for another reason)
N0	No regional metastases detected
N1-3	Regional metastases based upon the number of metastatic nodes and presence or absence of intralymphatic metastases (in transit or satellite metastases)

Note: N1-3 and a-c subcategories assigned as shown below:

<i>N Classification</i>	<i>No. of Metastatic Nodes</i>	<i>Nodal Metastatic Mass</i>
N1	1 node	a: micrometastasis* b: macrometastasis**
N2	2-3 nodes	a: micrometastasis* b: macrometastasis** c: in transit met(s)/satellite(s) <i>without</i> metastatic nodes

4 or more metastatic nodes, or matted nodes, or in transit met(s)/satellite(s) with metastatic node(s)

N3

*Micrometastases are diagnosed after sentinel lymph node biopsy and completion lymphadenectomy (if performed).

**Macrometastases are defined as clinically detectable nodal metastases confirmed by therapeutic lymphadenectomy or when nodal metastasis exhibits gross extracapsular extension.

Distant Metastasis (M)	
M0	No detectable evidence of distant metastases
M1a	Metastases to skin, subcutaneous, or distant lymph nodes
M1b	Metastases to lung
M1c	Metastases to all other visceral sites or distant metastases to any site combined with an elevated serum LDH

Note: Serum LDH is incorporated into the M category as shown below:

<i>M Classification</i>	<i>Site</i>	<i>Serum LDH</i>
M1a	Distant skin, subcutaneous, or nodal mets	Normal
M1b	Lung metastases	Normal
M1c	All other visceral metastases	Normal
	Any distant metastasis	Elevated

ANATOMIC STAGE / PROGNOSTIC GROUP								
Clinical Staging*				Pathologic Staging**				
Stage 0	Tis	N0	M0	0	Tis	N0	M0	
Stage IA	T1a	N0	M0	IA	T1a	N0	M0	
Stage IB	T1b	N0	M0	IB	T1b	N0	M0	
	T2a	N0	M0		T2a	N0	M0	
Stage IIA	T2b	N0	M0	IIA	T2b	N0	M0	
	T3a	N0	M0		T3a	N0	M0	
Stage IIB	T3b	N0	M0	IIB	T3b	N0	M0	
	T4a	N0	M0		T4a	N0	M0	
Stage IIC	T4b	N0	M0	IIC	T4b	N0	M0	
Stage III	Any T	≥N1	M0	IIIA	T1-4a	N1a	M0	
					T1-4a	N2a	M0	
					IIIB	T1-4b	N1a	M0
						T1-4b	N2a	M0
					T1-4a	N1b	M0	
				T1-4a	N2b	M0		
				T1-4a	N2c	M0		
				IIIC	T1-4b	N1b	M0	
					T1-4b	N2b	M0	
					T1-4b	N2c	M0	
Any T	N3	M0						
Stage IV	Any T	Any N	M1	IV	Any T	Any N	M1	

*Clinical staging includes microstaging of the primary melanoma and clinical/radiologic evaluation for metastases. By convention, it should be used after complete excision of the primary melanoma with clinical assessment for regional and distant metastases.

**Pathologic staging includes microstaging of the primary melanoma and pathologic information about the regional lymph nodes after partial or complete lymphadenectomy. Pathologic Stage 0 or Stage IA patients are the exception; they do not require pathologic evaluation of their lymph nodes.

5.2. Slimhindemelanomer

Tabel 5.2. AJCCs (7th ed.) staging of Mucosal Melanoma of the Head and Neck
Definitions of TNM

Primary Tumor*	
T3	Mucosal disease
T4a	Moderately advanced disease Tumor involving deep soft tissue, cartilage, bone, or overlying skin
T4b	Very advanced disease Tumor involving brain, dura, skull base, lower cranial nerves (IX, X, XI, XII), masticator space, carotid artery, prevertebral space, or mediastinal structures

Regional Lymph Nodes	
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastases
N1	Regional lymph node metastases present

Distant Metastasis	
M0	No distant metastasis
M1	Distant metastasis present

ANATOMIC STAGE / PROGNOSTIC GROUP	
Stage III	T3, N0, M0
Stage IVA	T4a, N0, M0 T3-T4a, N1, M0
Stage IVB	T4b, Any N, M0
Stage IVC	Any T, Any N, M1

*In situ mucosal melanomas are excluded from staging, as they are extremely rare. Mucosal melanoma is an aggressive neoplasm. To reflect this aggressive behavior, primary cancers limited to the mucosa are considered T3 lesions.

5.3. Konjunktivale melanomer

Tabel 5.3. AJCCs (7th ed.) staging of Malignant Melanoma of the Conjunctiva
Definitions of TNM

Clinical

Primary Tumor (T)	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T(is)	Melanoma confined to the conjunctival epithelium
<i>Malignant conjunctival melanoma of the bulbar conjunctiva</i>	
T1	
T1a	Less than or equal to 1 quadrant*
T1b	More than 1 but less than or equal to 2 quadrants

T1c	More than 2 but less than or equal to 3 quadrants
T1d	Greater than 3 quadrants
<i>Malignant conjunctival melanoma of the nonbulbar (palpebral, forniceal caruncular)</i>	
T2	
T2a	No caruncular, less than or equal to 1 quadrant
T2b	No caruncular, greater than 1 quadrant
T2c	Any caruncular, with less than or equal to 1 quadrant
T2d	Any caruncular, greater than 1 quadrant
<i>Any malignant conjunctival melanoma with local invasion</i>	
T3	
T3a	Globe
T3b	Eyelid
T3c	Orbit
T3d	Sinus
T4	Tumor invades the central nervous system

*Note: Quadrants are defined by clock hour, starting at the limbus (e.g., 6, 9, 12, 3) extending from the central cornea, to and beyond the eyelid margins. This will bisect the caruncle.

Regional Lymph Node (N)	
NX	Regional lymph nodes cannot be assessed
N0a (biopsied)	No regional lymph node metastasis, biopsy performed
N0b (not biopsied)	No regional lymph node metastasis, biopsy not performed
N1	Regional lymph node metastasis

Metastasis (M)	
M0	No distant metastasis
M1	Distant metastasis

ANATOMIC STAGE / PROGNOSTIC GROUP	
No stage grouping is presently recommended	

Pathologic

Primary Tumor (pT)	
pTX	Primary tumor cannot be assessed
pT0	No evidence of primary tumor
pT(i	
s)	Melanoma of the conjunctiva confined to the epithelium*
pT1	Melanoma of the bulbar conjunctiva not more than 0.5 mm in thickness with invasion of the
a	substantia propria
pT1	Melanoma of the bulbar conjunctiva more than 0.5 mm but not more than 1.5 mm in thickness with
b	invasion of the substantia propria
pT1	Melanoma of the bulbar conjunctiva greater than 1.5 mm in thickness with invasion of the substantia
c	propria
pT2	Melanoma of the palpebral, forniceal, or caruncular conjunctiva not more than 0.5 mm in thickness
a	with invasion of the substantia propria
pT2	Melanom more than 0.5 mm but not greater than 1.5 mm in thickness with invasion of the substantia
b	propria
pT2	Melanoma of the palpebral, forniceal, or caruncular conjunctiva greater than 1.5 mm in thickness
c	with invasion of the substantia propria

pT3 Melanoma invades the eye, eyelid, nasolacrimal system, sinuses, or orbit

pT4 Melanoma invades the central nervous system

*Note: pT(is) melanoma in situ (includes the term primary acquired melanosis) with atypia replacing greater than 75 % of the normal epithelial thickness, with cytologic features of epithelioid cells, including abundant cytoplasm, vesicular nuclei or prominent nucleoli, and/or presence of intraepithelial nests of atypical cells.

Regional Lymph Nodes (pN)

pNX Regional lymph nodes cannot be assessed

pN0 No regional lymph node metastasis

pN1 Regional lymph node metastasis present

Distant Metastasis (pM)

cM0 No distant metastasis

pM1 Distant metastasis

ANATOMIC STAGE / PROGNOSTIC GROUP

No stage grouping is presently recommended

5.4. Uveale melanomer

Tabel 5.4. AJCCs (7th ed.) staging of Malignant Melanoma of the Uvea

Definitions of TNM

These definitions apply to both clinical* and pathological** staging

Primary Tumor

All Uveal Melanomas

TX Primary tumor cannot be assessed

T0 No evidence of primary tumor

*Iris****

T1 Tumor limited to the iris

T1a Tumor limited to the iris not more than 3 clock hours in size

T1b Tumor limited to the iris more than 3 clock hours in size

T1c Tumor limited to the iris with secondary glaucoma

T2 Tumor confluent with or extending into the ciliary body, choroid, or both

T2a Tumor confluent with or extending into the ciliary body, choroid, or both, with secondary glaucoma

T3 Tumor confluent with or extending into the ciliary body, choroid, or both, with scleral extension

T3a Tumor confluent with or extending into the ciliary body, choroid, or both, with scleral extension and secondary glaucoma

T4 Tumor with extrascleral extension

T4a Tumor with extrascleral extension less than or equal to 5 mm i diameter

T4b Tumor with extrascleral extension more than 5 mm i diameter

*Note: In clinical practice, the largest tumor basal diameter may be estimated in optic disc diameters (dd, average: 1 dd=1.5 mm). Tumor thickness may be estimated in diopters (average: 2.5 diopters=1 mm). However, techniques such as ultrasonography and fundus photography are used to provide more accurate measurements. Ciliary body involvement can be evaluated by the slit-lamp, ophthalmoscopy, gonioscopy, and transillumination. However, high-frequency ultrasonography (ultrasound biomicroscopy) is used for

more accurate assessment. Extension through the sclera is evaluated visually before and during surgery, and with ultrasonography, computed tomography, or magnetic resonance imaging.

****Note:** When histopathologic measurements are recorded after fixation, tumor diameter and thickness may be underestimated because of tissue shrinkage.

*****Note:** Iris melanomas originate from, and are predominantly located in, this region of the uvea. If less than half of the tumor volume is located within the iris, the tumor may have originated in the ciliary body and consideration should be given to classifying it accordingly.

Ciliary Body and Choroid

Primary ciliary body and choroidal melanomas, as defined in Figure 5.4, are classified according to the four tumor size categories below:

T1	Tumor size category 1
T1a	Tumor size category 1 without ciliary body involvement and extraocular extension
T1b	Tumor size category 1 with ciliary body involvement
T1c	Tumor size category 1 without ciliary body involvement but with extraocular extension less than or equal to 5 mm in diameter
T1d	Tumor size category 1 with ciliary body involvement and extraocular extension less than or equal to 5 mm i diameter
T2	Tumor size category 2
T2a	Tumor size category 2 without ciliary body involvement and extraocular extension
T2b	Tumor size category 2 with ciliary body involvement
T2c	Tumor size category 2 without ciliary body involvement but with extraocular extension less than or equal to 5 mm i diameter
T2d	Tumor size category 2 with ciliary body involvement and extraocular extension less than or equal to 5 mm i diameter
T3	Tumor size category 3
T3a	Tumor size category 3 without ciliary body involvement and extraocular extension
T3b	Tumor size category 3 with ciliary body involvement
T3c	Tumor size category 3 without ciliary body involvement but with extraocular extension less than or equal to 5 mm in diameter
T3d	Tumor size category 3 with ciliary body involvement and extraocular extension less than or equal to 5 mm i diameter
T4	Tumor size category 4
T4a	Tumor size category 4 without ciliary body involvement and extraocular extension
T4b	Tumor size category 4 with ciliary body involvement
T4c	Tumor size category 4 without ciliary body involvement but with extraocular extension less than or equal to 5 mm in diameter
T4d	Tumor size category 4 with ciliary body involvement and extraocular extension less than or equal to 5 mm i diameter
T4e	Any tumor size category with extraocular extension more than 5 mm in diameter

Regional Lymph Nodes (N)

NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Regional lymph node metastasis

Metastasis (M)

M0	No distant metastasis
M1	Distant metastasis
M1a	Largest diameter of the largest metastasis 3 cm or less

M1b	Largest diameter of the largest metastasis 3.1-8.0 cm
M1c	Largest diameter of the largest metastasis 8.1 cm or more

Thickness (mm)

>15.0	4	4	4	4	4	4	4
12.1-15.0	3	3	3	3	3	4	4
9.1-12.0	3	3	3	3	3	3	4
6.1-9.0	2	2	2	2	3	3	4
3.1-6.0	1	1	1	2	2	3	4
≤3.0	1	1	1	1	2	2	4
	≤3.0	3.1-6.0	6.1-9.0	9.1-12.0	12.1-15.0	15.0-18.0	>18.0

Largest basal diameter (mm)

Figure 5.4. Classification (tumor size category 1-4) for ciliary body and choroid uveal melanoma based on thickness and diameter.

ANATOMIC STAGE / PROGNOSTIC GROUP			
Stage I	T1a	N0	M0
Stage IIA	T1b-d	N0	M0
	T2a	N0	M0
Stage IIB	T2b	N0	M0
	T3a	N0	M0
Stage IIIA	T2c-d	N0	M0
	T3b-c	N0	M0
	T4a	N0	M0
Stage IIIB	T3d	N0	M0
	T4b-c	N0	M0
Stage IIIC	T4d-e	N0	M0
Stage IV	Any T	N1	M0
	Any T	Any N	M1a-c

Reference List

1. *AJCC Cancer Staging Handbook*. Springer, 2010.