

**Remarques**

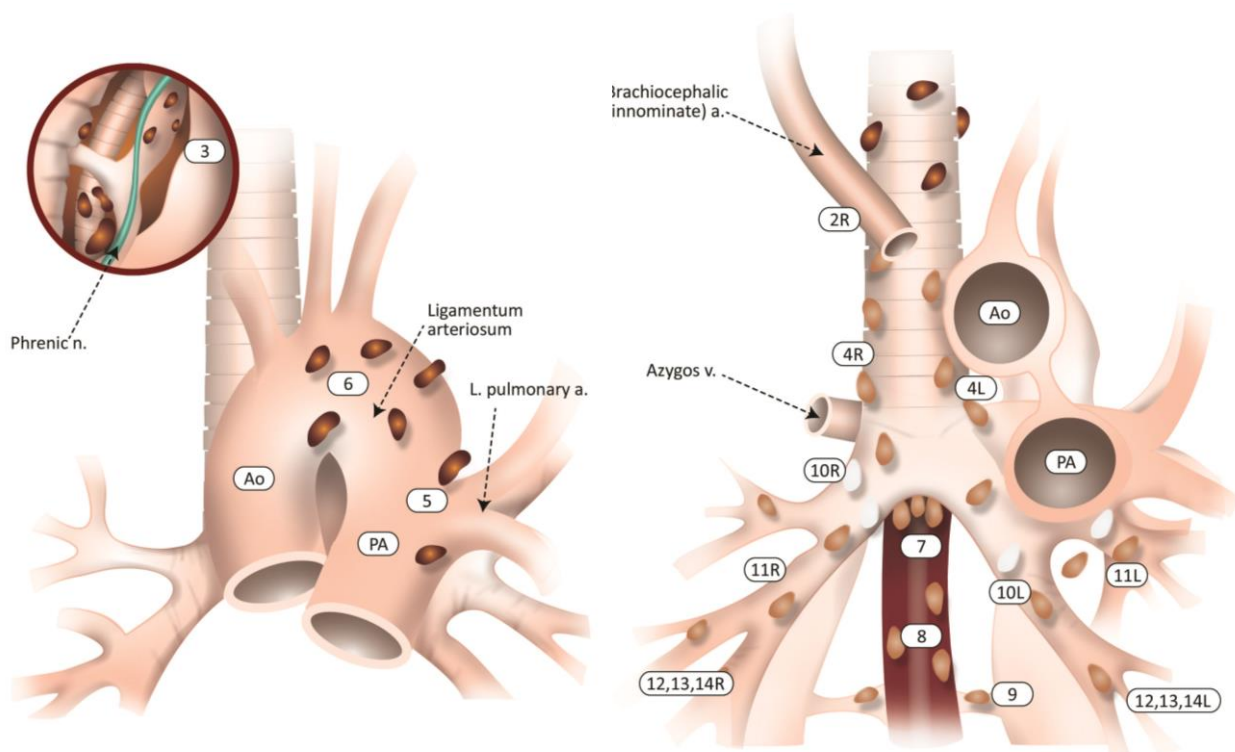
- La classification TNM est une classification clinique.
- En post-opératoire, avec les données anatomopathologiques, les patients sont reclassés en pTNM suivant les mêmes critères que précédemment.
- Après traitement d'induction, les patients sont reclassés en ypTNM suivant les mêmes critères que précédemment.

CLASSIFICATION PAR STADE

Carcinome occulte	Tx N0 M0	Stade IIIA	T1,2 N2, M0
Stade 0	Tis N0 M0		T3 N1 M0
Stade IA-1	T1a(mi) N0 M0		T4 N0,1 M0
	T1a N0 M0	Stade IIIB	T1,2 N3 M0
Stade IA-2	T1b N0 M0		T3,4 N2 M0
Stade IA-3	T1c N0 M0	Stade IIIC	T3,4 N3 M0
Stade IB	T2a N0 M0	Stade IV-A	Tout M1a
Stade IIA	T2b N0 M0		Tout M1b
Stade IIB	T1,2 N1 M0	Stade IV-B	Tout M1c
	T3 N0 M0		

	N0	N1	N2	N3	M1a-b Tout N	M1c Tout N
T1a	IA-1	IIB	IIIA	IIIB	IV-A	IV-B
T1b	IA-2	IIB	IIIA	IIIB	IV-A	IV-B
T1c	IA-3	IIB	IIIA	IIIB	IV-A	IV-B
T2a	IB	IIB	IIIA	IIIB	IV-A	IV-B
T2b	IIA	IIB	IIIA	IIIB	IV-A	IV-B
T3	IIB	IIIA	IIIB	IIIC	IV-A	IV-B
T4	IIIA	IIIA	IIIB	IIIC	IV-A	IV-B

Figure 1 – 8^{ème} classification TNM du cancer du poumon
 Les TisN0M0 correspondent au stade 0 - Les T1a(mi)N0M0 correspondent à un stade IA-1



- 2 R- 4R** chaîne paratrachéale droite
- 2L-4L** chaîne paratrachéale gauche
- 5** ganglions sous-aortiques
- 6** ganglions para-aortiques
- 7** ganglions intertrachéobronchiques

- 8** ganglions latéro-œsophagiens
- 9** ganglions du ligament triangulaire
- 10-11** ganglions intrapulmonaires et extra-lobaires
- 12-13-14** ganglions intra-lobaires

Figure 2 – Anatomie descriptive des ganglions lymphatiques médiastinaux. (24)



REFERENCES

- Travis WD, World Health Organization, International Agency for Research on Cancer, International Association for the Study of Lung Cancer, International Academy of Pathology, editors. Pathology and genetics of tumours of the lung, pleura, thymus and heart. Lyon : Oxford: IARC Press, Oxford University Press (distributor); 2004. 344 p. (World Health Organization classification of tumours).
- Fishback NF, Travis WD, Moran CA, Guinee DG, McCarthy WF, Koss MN. Pleomorphic (spindle/giant cell) carcinoma of the lung. A clinicopathologic correlation of 78 cases. *Cancer*. 1994 Jun 15;73(12):2936–45.
- Rossi G, Cavazza A, Sturm N, Migaldi M, Facciolo N, Longo L, et al. Pulmonary carcinomas with pleomorphic, sarcomatoid, or sarcomatous elements: a clinicopathologic and immunohistochemical study of 75 cases. *Am J Surg Pathol*. 2003 Mar;27(3):311–24.
- Nakajima M, Kasai T, Hashimoto H, Iwata Y, Manabe H. Sarcomatoid carcinoma of the lung: a clinicopathologic study of 37 cases. *Cancer*. 1999 Aug 15;86(4):608–16.
- Pelosi G, Sonzogni A, De Pas T, Galetta D, Veronesi G, Spaggiari L, et al. Review article: pulmonary sarcomatoid carcinomas: a practical overview. *Int J Surg Pathol*. 2010 Apr;18(2):103–20.
- Ro JY, Chen JL, Lee JS, Sahin AA, Ordóñez NG, Ayala AG. Sarcomatoid carcinoma of the lung. Immunohistochemical and ultrastructural studies of 14 cases. *Cancer*. 1992 Jan 15;69(2):376–86.
- Herman DL, Bullock WK, Waken JK. Giant cell adenocarcinoma of the lung. *Cancer*. 1966 Oct;19(10):1337–46.
- Davis MP, Eagan RT, Weiland LH, Pairorero PC. Carcinosarcoma of the lung: Mayo Clinic experience and response to chemotherapy. *Mayo Clin Proc*. 1984 Sep;59(9):598–603.
- Ishida T, Tateishi M, Kaneko S, Yano T, Mitsudomi T, Sugimachi K, et al. Carcinosarcoma and spindle cell carcinoma of the lung. Clinicopathologic and immunohistochemical studies. *J Thorac Cardiovasc Surg*. 1990 Dec;100(6):844–52.
- Matsui K, Kitagawa M, Miwa A. Lung carcinoma with spindle cell components: sixteen cases examined by immunohistochemistry. *Hum Pathol*. 1992 Nov;23(11):1289–97.
- Matsui K, Kitagawa M. Spindle cell carcinoma of the lung. A clinicopathologic study of three cases. *Cancer*. 1991 May 1;67(9):2361–7.
- Finley JL, Silverman JF, Dabbs DJ. Fine-needle aspiration cytology of pulmonary carcinosarcoma with immunocytochemical and ultrastructural observations. *Diagn Cytopathol*. 1988;4(3):239–43.
- Razuk MA, Urschel HC, Albers JE, Martin JA, Paulson DL. Pulmonary giant cell carcinoma. *Ann Thorac Surg*. 1976 Jun;21(6):540–5.
- Shin MS, Jackson LK, Shelton RW, Greene RE. Giant cell carcinoma of the lung. Clinical and roentgenographic manifestations. *Chest*. 1986 Mar;89(3):366–9.
- Ginsberg SS, Buzaid AC, Stern H, Carter D. Giant cell carcinoma of the lung. *Cancer*. 1992 Aug 1;70(3):606–10.
- Moon KC, Lee GK, Yoo S-H, Jeon YK, Chung J-H, Han J, et al. Expression of caveolin-1 in pleomorphic carcinoma of the lung is correlated with a poor prognosis. *Anticancer Res*. 2005 Dec;25(6C):4631–7.
- Koss MN, Hochholzer L, Frommelt RA. Carcinosarcomas of the lung: a clinicopathologic study of 66 patients. *Am J Surg Pathol*. 1999 Dec;23(12):1514–26.
- Pelosi G, Frassetto F, Nappi O, Pastorino U, Maisonneuve P, Pasini F, et al. Pleomorphic carcinomas of the lung show a selective distribution of gene products involved in cell differentiation, cell cycle control, tumor growth, and tumor cell motility: a clinicopathologic and immunohistochemical study of 31 cases. *Am J Surg Pathol*. 2003 Sep;27(9):1203–15.
- Nishida K, Kobayashi Y, Ishikawa Y, Satoh Y, Okumura S, Nishimura H, et al. Sarcomatoid adenocarcinoma of the lung: clinicopathological, immunohistochemical and molecular analyses. *Anticancer Res*. 2002 Dec;22(6B):3477–83.
- Weissferdt A, Kalhor N, Correa AM, Moran CA. "Sarcomatoid" carcinomas of the lung: a clinicopathologic study of 86 cases with a new perspective on tumor classification. *Hum Pathol*. 2016 Dec 16;
- Takeshima Y, Amatya VJ, Kushitani K, Kaneko M, Inai K. Value of immunohistochemistry in the differential diagnosis of pleural sarcomatoid mesothelioma from lung sarcomatoid carcinoma. *Histopathology*. 2009 May;54(6):667–76.
- Raveglia F, Mezzetti M, Panigalli T, Furia S, Giuliani L, Conforti S, et al. Personal experience in surgical management of pulmonary pleomorphic carcinoma. *Ann Thorac Surg*. 2004 Nov;78(5):1742–7.
- Goldstraw P, Chansky K, Crowley J, Rami-Porta R, Asamura H, Eberhardt WEE, et al. The IASLC Lung Cancer Staging Project: Proposals for Revision of the TNM Stage Groupings in the Forthcoming (Eighth) Edition of the TNM Classification for Lung Cancer. *J Thorac Oncol Off Publ Int Assoc Study Lung Cancer*. 2016 Jan;11(1):39–51.
- Eberhardt WEE, Mitchell A, Crowley J, Kondo H, Kim YT, Turrisi A, et al. The IASLC Lung Cancer Staging Project: Proposals for the Revision of the M Descriptors in the Forthcoming Eighth Edition of the TNM Classification of Lung Cancer. *J Thorac Oncol Off Publ Int Assoc Study Lung Cancer*. 2015 Nov;10(11):1515–22.
- Nappi O, Glasner SD, Swanson PE, Wick MR. Biphasic and monophasic sarcomatoid carcinomas of the lung. A reappraisal of "carcinosarcomas" and "spindle-cell carcinomas." *Am J Clin Pathol*. 1994 Sep;102(3):331–40.
- Mochizuki T, Ishii G, Nagai K, Yoshida J, Nishimura M, Mizuno T, et al. Pleomorphic carcinoma of the lung: clinicopathologic characteristics of 70 cases. *Am J Surg Pathol*. 2008 Nov;32(11):1727–35.
- Girard N, al. Oncologie orpheline thoracique : carcinomes pléiomorphes, sarcomatoïdes, ou avec éléments sarcomateux. *Abstr Rev Mal Respir*. 2007;(24):1S88.
- Chang YL, Lee YC, Shih JY, Wu CT. Pulmonary pleomorphic (spindle) cell carcinoma: peculiar clinicopathologic manifestations different from ordinary non-small cell carcinoma. *Lung Cancer Amst Neth*. 2001 Oct;34(1):91–7.
- Cabarcos A, Gomez Dorransoro M, Lobo Beristain JL. Pulmonary carcinosarcoma: a case study and review of the literature. *Br J Dis Chest*. 1985 Jan;79(1):83–94.
- Lee HJ, Goo JM, Kim KW, Im J-G, Kim J-H. Pulmonary blastoma: radiologic findings in five patients. *Clin Imaging*. 2004 Apr;28(2):113–8.
- Robert J, Pache J-C, Seium Y, de Perrot M, Spiliopoulos A. Pulmonary blastoma: report of five cases and identification of clinical features suggestive of the disease. *Eur J Cardio-Thorac Surg Off J Eur Assoc Cardio-Thorac Surg*. 2002 Nov;22(5):708–11.
- Holst VA, Finkelstein S, Colby TV, Myers JL, Yousem SA. p53 and K-ras mutational genotyping in pulmonary carcinosarcoma, spindle cell carcinoma, and pulmonary blastoma: implications for histogenesis. *Am J Surg Pathol*. 1997 Jul;21(7):801–11.



33. Blaukovitsch M, Halbwdl I, Kothmaier H, Gogg-Kammerer M, Popper HH. Sarcomatoid carcinomas of the lung--are these histogenetically heterogeneous tumors? *Virchows Arch Int J Pathol*. 2006 Oct;449(4):455–61.
34. Yendamuri S, Caty L, Pine M, Adem S, Bogner P, Miller A, et al. Outcomes of sarcomatoid carcinoma of the lung: a Surveillance, Epidemiology, and End Results Database analysis. *Surgery*. 2012 Sep;152(3):397–402.
35. Shi B, Gaebelein G, Hildebrandt B, Weichert W, Glanemann M. Adult jejunojejunal intussusception caused by metastasized pleomorphic carcinoma of the lung: report of a case. *Surg Today*. 2009;39(11):984–9.
36. Ito K, Oizumi S, Fukumoto S, Harada M, Ishida T, Fujita Y, et al. Clinical characteristics of pleomorphic carcinoma of the lung. *Lung Cancer Amst Neth*. 2010 May;68(2):204–10.
37. Cheran SK, Nielsen ND, Patz EF. False-negative findings for primary lung tumors on FDG positron emission tomography: staging and prognostic implications. *AJR Am J Roentgenol*. 2004 May;182(5):1129–32.
38. Park JS, Lee Y, Han J, Kim HK, Choi YS, Kim J, et al. Clinicopathologic outcomes of curative resection for sarcomatoid carcinoma of the lung. *Oncology*. 2011;81(3–4):206–13.
39. Koss MN, Hochholzer L, O'Leary T. Pulmonary blastomas. *Cancer*. 1991 May 1;67(9):2368–81.
40. Girard N, al. *Lymphoma, Lymphoproliferative Diseases, and Other Primary Malignant Tumors*. Fifth edition. Philadelphia, PA: Elsevier Saunders; 2009. (Mason RJ, Broaddus VC, Murray JF, Nadel JA. Murray and Nadel's textbook of respiratory medicine.).
41. Chaft JE, Sima CS, Ginsberg MS, Huang J, Kris MG, Travis WD, et al. Clinical outcomes with perioperative chemotherapy in sarcomatoid carcinomas of the lung. *J Thorac Oncol Off Publ Int Assoc Study Lung Cancer*. 2012 Sep;7(9):1400–5.
42. Ung M, Rouquette I, Filleron T, Taillandy K, Brouchet L, Bennouna J, et al. Characteristics and Clinical Outcomes of Sarcomatoid Carcinoma of the Lung. *Clin Lung Cancer*. 2016 Sep;17(5):391–7.
43. Karim NA, Schuster J, Eldessouki I, Gaber O, Namad T, Wang J, et al. Pulmonary sarcomatoid carcinoma: University of Cincinnati experience. *Oncotarget*. 2018 Jan 9;9(3):4102–8.
44. Vieira T, Girard N, Ung M, Monnet I, Cazes A, Bonnet P, et al. Efficacy of first-line chemotherapy in patients with advanced lung sarcomatoid carcinoma. *J Thorac Oncol Off Publ Int Assoc Study Lung Cancer*. 2013 Dec;8(12):1574–7.
45. Terra SB, Jang JS, Bi L, Kipp BR, Jen J, Yi ES, et al. Molecular characterization of pulmonary sarcomatoid carcinoma: analysis of 33 cases. *Mod Pathol Off J U S Can Acad Pathol Inc*. 2016;29(8):824–31.
46. Schrock AB, Li SD, Frampton GM, Suh J, Braun E, Mehra R, et al. Pulmonary Sarcomatoid Carcinomas Commonly Harbor Either Potentially Targetable Genomic Alterations or High Tumor Mutational Burden as Observed by Comprehensive Genomic Profiling. *J Thorac Oncol Off Publ Int Assoc Study Lung Cancer*. 2017;12(6):932–42.
47. Forest F, Yvorel V, Karpathiou G, Stachowicz M-L, Vergnon J-M, Fournel P, et al. Histomolecular profiling of pleomorphic, spindle cell, and giant cell carcinoma of the lung for targeted therapies. *Hum Pathol*. 2016 Mar;49:99–106.
48. Niu HT, Dong P, Wang JN, Zeng YX, Yuan W, Yuan P. [Expression of anaplastic lymphoma kinase fusion gene in patients with lung sarcomatoid carcinoma and treatment analysis]. *Zhonghua Yi Xue Za Zhi*. 2018 Mar 6;98(9):688–91.
49. Tong JH, Yeung SF, Chan AWH, Chung LY, Chau SL, Lung RWM, et al. MET Amplification and Exon 14 Splice Site Mutation Define Unique Molecular Subgroups of Non-Small Cell Lung Carcinoma with Poor Prognosis. *Clin Cancer Res Off J Am Assoc Cancer Res*. 2016 15;22(12):3048–56.
50. Attanoos RL, Papagiannis A, Suttinont P, Goddard H, Papotti M, Gibbs AR. Pulmonary giant cell carcinoma: pathological entity or morphological phenotype? *Histopathology*. 1998 Mar;32(3):225–31.
51. Terretaz E, Frey J-G, Chavallaz O. [Pulmonary blastoma in adults]. *Rev Médicale Suisse*. 2007 Feb 21;3(99):470–2, 474–6.
52. Larsen H, Sørensen JB. Pulmonary blastoma: a review with special emphasis on prognosis and treatment. *Cancer Treat Rev*. 1996 May;22(3):145–60.
53. Novotny JE, Huiras CM. Resection and adjuvant chemotherapy of pulmonary blastoma: a case report. *Cancer*. 1995 Nov 1;76(9):1537–9.
54. Saint-Georges F, Terrier P, Sabourin JC, Bonvalot S, De Montpreville V, Ruffie P. [Pulmonary carcinosarcoma with jejunal metastasis: complete response to chemotherapy]. *Rev Pneumol Clin*. 2002 Sep;58(4 Pt 1):249–52.
55. Hill DA, Sadeghi S, Schultz MZ, Burr JS, Dehner LP. Pleuropulmonary blastoma in an adult: an initial case report. *Cancer*. 1999 Jun 1;85(11):2368–74.
56. Cutler CS, Michel RP, Yassa M, Langleben A. Pulmonary blastoma: case report of a patient with a 7-year remission and review of chemotherapy experience in the world literature. *Cancer*. 1998 Feb 1;82(3):462–7.
57. Liman ST, Altinok T, Topcu S, Tastepe AI, Uzar A, Demircan S, et al. Survival of biphasic pulmonary blastoma. *Respir Med*. 2006 Jul;100(7):1174–9.
58. Mainwaring MG, Poor C, Zander DS, Harman E. Complete remission of pulmonary spindle cell carcinoma after treatment with oral germanium sesquioxide. *Chest*. 2000 Feb;117(2):591–3.
59. Francis D, Jacobsen M. Pulmonary blastoma. *Curr Top Pathol Ergeb Pathol*. 1983;73:265–94.
60. Bini A, Ansaloni L, Grani G, Grazia M, Pagani D, Stella F, et al. Pulmonary blastoma: report of two cases. *Surg Today*. 2001;31(5):438–42.
61. Asimakopoulos G, Krausz T, Smith PL. Radical resection of a pulmonary blastoma involving the mediastinum. *Thorac Cardiovasc Surg*. 1999 Jun;47(3):197–9.
62. Chaugle H, Sivardeen KA, Benbow EW, Keenan DJ. Pulmonary blastoma. *Eur J Cardio-Thorac Surg Off J Eur Assoc Cardio-Thorac Surg*. 1998 May;13(5):615–6.
63. LeMense GP, Reed CE, Silvestri GA. Pulmonary blastoma: a rare lung malignancy. *Lung Cancer Amst Neth*. 1996 Sep;15(2):233–7.
64. Force S, Patterson GA. Clinical-pathologic conference in general thoracic surgery: pulmonary blastoma. *J Thorac Cardiovasc Surg*. 2003 Nov;126(5):1247–50.
65. Ohara N, Tominaga O, Oka T, Motoi R, Nakano H, Muto T. Pulmonary blastoma: report of a case. *Surg Today*. 1999;29(4):385–8.
66. Surmont VF, van Klaveren RJ, Nowak PJCM, Zondervan PE, Hoogsteden HC, van Meerbeeck JP. Unexpected response of a pulmonary blastoma on radiotherapy: a case report and review of the literature. *Lung Cancer Amst Neth*. 2002 May;36(2):207–11.
67. Indolfi P, Casale F, Carli M, Bisogno G, Ninfo V, Cecchetto G, et al. Pleuropulmonary blastoma: management and prognosis of 11 cases. *Cancer*. 2000 Sep 15;89(6):1396–401.
68. Hastürk S, Erdoğan Y, Ozyildirim A, Cakir E, Teke Y. Combined chemotherapy and radiotherapy in advanced pulmonary blastoma. *Thorax*. 1995 May;50(5):591–2.



DECLARATION DES LIENS D'INTERETS

Les personnes ci-dessous ont déclaré des liens d'intérêt en oncologie thoracique pour des participations à des congrès, séminaires ou formations ; des bourses ou autre financement ; des rémunérations personnelles ; des intéressements ; ou tout autre lien pertinent dans les 3 dernières années :

ARPIN D : Takeda, Roche
 AUDIGIER-VALETTE C : Roche, Abbvie, BMS, MSD, Takeda, Boehringer, AstraZeneca, Pfizer, Novartis, Fabre, Amgen, Lilly
 AVRILLON V : BMS, Abbvie.
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Les autres participants et membres des groupes de travail n'ont déclaré aucun lien d'intérêt en oncologie thoracique.
 Aucun participant ou membre d'un groupe de travail n'a rapporté de lien d'intérêt avec l'industrie du tabac.



MENTIONS LEGALES

La réunion de mise à jour des référentiels (édition 2019) a été organisée par l'Association de Recherche d'Information Scientifique et Thérapeutique en Oncologie Thoracique (ARISTOT).

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