

20 years of real-life nationwide epidemiological data on lung cancer in non-academic French public hospitals

KBP-2020-CPHG compared to 2000 and 2010 studies

D. Debieuvre¹, J.B. Auliac², O. Bylicki³, L. Moreau⁴, R. Corre⁵, J. Pinsolle⁶, A. Bizieux Thaminy⁷, S. Schneider⁸, B. Godbert⁹, P.A. Renault¹⁰, P. Brun¹¹, M. Bernardi¹², E.Briens¹³, M. Lepoulain Doubliez¹⁴, B. Delclaux¹⁵, L. Petit¹⁶, J.L. Bizec¹⁷, G. Milliet de Faverges¹⁸, F. Al Freijat¹⁹, J. Quieffin²⁰

Respiratory department of the following general hospitals : ¹Pneumology, GHRMSA, Mulhouse, France; ²Pneumology Department, CHI - Centre Hospitalier Intercommunal de Créteil, Créteil Cedex, France; ³Pneumology Department, Hôpital D'instruction Des Armées Ste Anne, Toulon, France; ⁴Hôpitaux Civils de Colmar, Colmar, France; ⁵CH de Cornouaille - Hôpital Laennec, Quimper, France; ⁶Pneumology Department, Centre Hospitalier Chambéry, Chambéry, France; ⁷Centre Hospitalier La Roche-sur-Yon, La Roche-sur-Yon, France; ⁸Centre Hospitalier de la Côte Basque, Bayonne, France; ⁹Hôpital Robert Schuman, Vantoux, France; ¹⁰CH François Mitterrand, Pau, France; ¹¹Centre Hospitalier Valence, Valence, France; ¹²Pneumology Department, Centre Hospitalier Aix-en-Provence, Aix-en-Provence, France; ¹³Hospital Center De Saint Brieuc, Saint-Brieuc, France; ¹⁴Pneumology Department, Centre Hospitalier Corvisart, Charleville Mézières, France; ¹⁵Centre Hospitalier Troyes - Hôpital des Hauts Clos, Troyes, France; ¹⁶Pneumology Department, Centre Hospitalier Alpes Léman, Contamine-sur- Arve, France; ¹⁷Centre Hospitalier Bretagne Atlantique - Centre d'Oncologie Saint-Yves, Vannes, Cedex, France; ¹⁸Pneumology Department, Centrer Hospitalier Pierre Beregovoy, Nevers, France; ¹⁹Pneumology Department, Hopital Nord Franche Comté,Belfort, France; ²⁰pneumology Department, Centre Hospitalier Jacques Monod, Le Havre, France.

BACKGROUND

Each decade since 2000, the French College of General Hospital Pulmonologists (CPHG) conducts a real-life nationwide prospective epidemiological, observational, multicenter study on primary lung cancer (LC). First data on patient and tumour characteristics from 2020 cohort are here reported and compared with 2000 and 2010 results.

METHODS

Collection of all new LC histologically or cytologically confirmed between 01/01 and 12/31/2020 in non-academic public hospital pulmonology or oncology units. A Scientific Committee controlled inclusion exhaustivity and quality. These data have been compared to those from KBP-2000 and KBP-2010, conducted according to the same methodology.

82 centres included 8,999 patients (vs 137 and 104 centres; 5,667 and 7,051 patients in 2000 and 2010 respectively) (Figure 1).

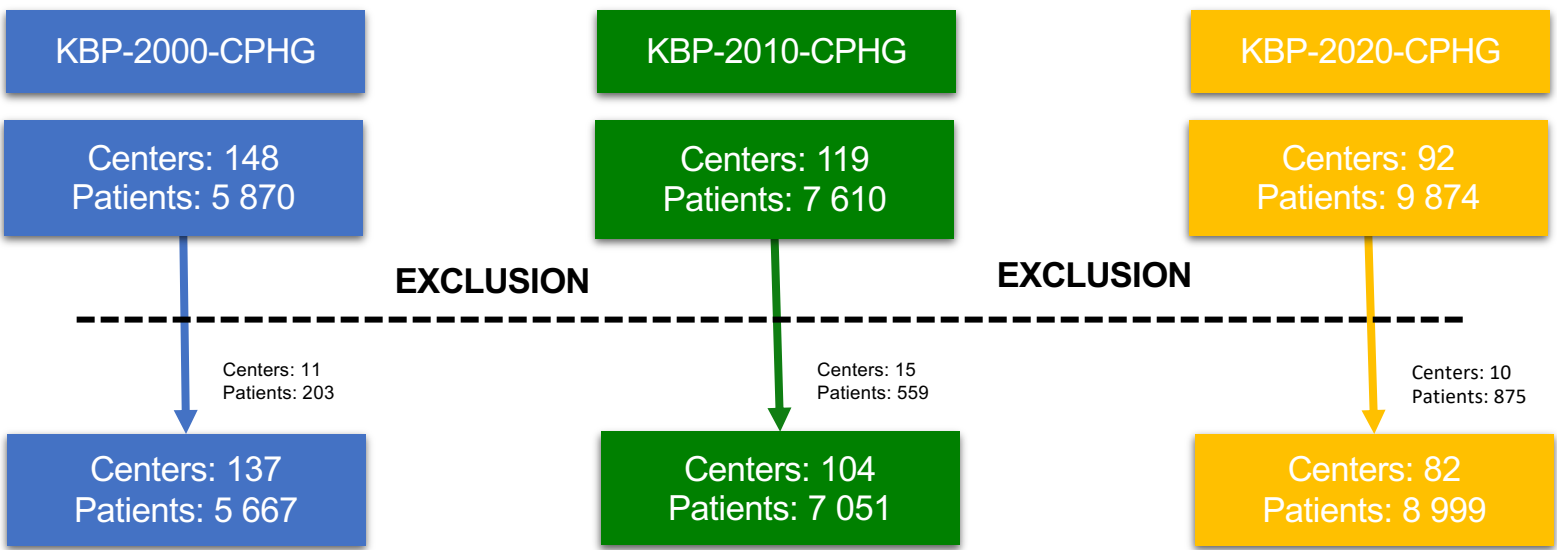


Figure 1: Flowchart of study populations

RESULTS

Patient's and tumor characteristics

Compared with both previous decades, patients were significantly older. The proportion of women has increased markedly, and the proportion of non-smokers was also higher (Table 1). Moreover, most patients were PS0-1 and still metastatic at diagnosis.

	KBP-2000 n=5667		KBP-2010 n=7051		KBP-2020 n=8999		p-value
	n	%	n	%	n	%	
Gender	n=5667		n=7051		n=8999		<0.0001
Men	4763	(84.0)	5340	(75.7)	5885	(65.4)	
Women	904	(16.0)	1711	(24.3)	3114	(34.6)	
Age (years)	n=5664		n=7051		n=8999		<0.0001
Mean +/- SD	64.3±11.5		65.5±11.3		67.8±10.3		
≤ 50	698	12.3	615	8.7	428	4.8	
51-60	1235	21.8	1899	26.9	1491	16.6	
61-70	1714	30.3	2066	29.3	3297	36.6	
71-80	1594	28.1	1732	24.6	2651	29.5	
>80	423	7.5	739	10.5	1132	12.5	
Smoking	n=5586		n=7008		n=8983		<0.0001
Never smoker	402	7.2	762	10.9	1129	12.6	
Former smoker	2253	40.3	2795	39.9	3106	34.5	
Smoker	2931	52.5	3451	49.2	4748	52.9	<0.0001
PS at diagnosis	n=5656		n=6976		n=8812		
PS0	1518	26.8	1902	27.3	2754	31.3	
PS1	2131	37.7	2904	41.6	3820	43.3	
PS2	1004	17.8	1284	18.4	1492	16.9	
PS3	817	14.4	693	9.9	581	6.6	<0.0001
PS4	186	3.3	193	2.8	165	1.9	
Category - Only in NSCLC	n=4402		n=6064		n=7663		
Localized	1010	22.9	1106	18.3	1648	21.5	<0.0001
Locally advanced	1522	34.5	1418	23.5	1595	20.9	
Metastatic / disseminated	1879	42.6	3522	58.3	4405	57.6	

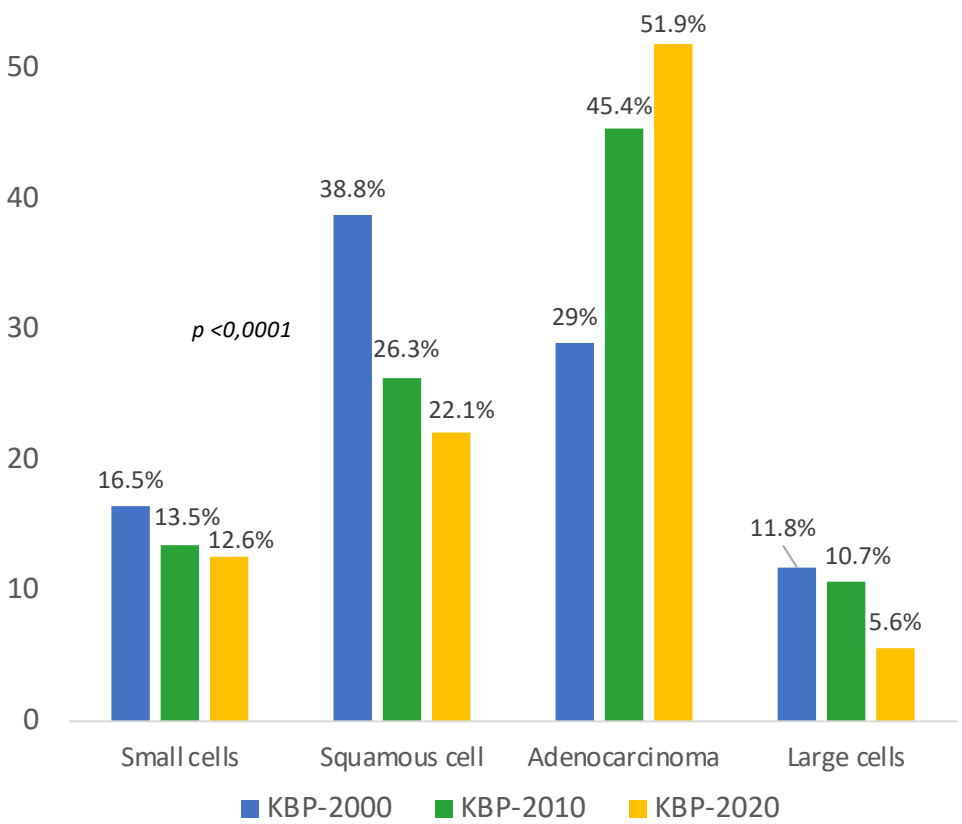
Table 1: Comparison of main patient characteristics

*Localized category comprised Stages I and II, locally advanced category comprised Stage III, and metastatic / disseminated category comprised Stage IV

RESULTS (continued)

Adenocarcinoma was still the main histology (51.9% vs 45.4% in 2010 and 29.0% in 2000, P<0.0001). Whereas the other subtypes like small-cell lung cancer as well as squamous cell and large-cell carcinomas, significantly decreased (P <0.0001 for each histological type, P trends <0.0001) (Figure 2).

Figure 2: Tumor characteristics
Lepidic adenocarcinoma and other subtypes were not represented.

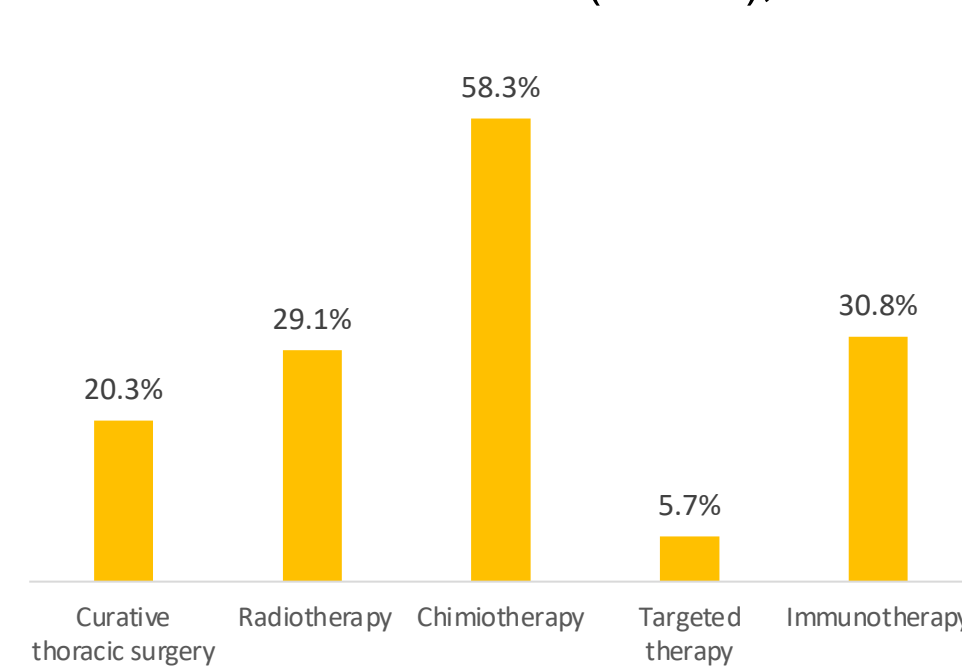


Molecular biology and treatments

In 2020, 87.7% of patients benefited from molecular biology testing (vs 30.5% in 2010) and the most frequently observed mutations were KRAS (37.9%), EGFR (14.9%) and STK11 (14.8%).

Curative surgery represented 20.3% out of the first therapeutic strategies, radiotherapy 28.6%, chemotherapy 58.4%, targeted therapy 5.8% and immunotherapy 30.2% (Figure 3).

Figure 3: KBP-2020 – First treatments carried out*
*Non-exclusive treatments



ACKNOWLEDGMENTS

The authors thank all the investigators of the study and the scientific committee.

The present study was promoted by the Collège des Pneumologues des Hôpitaux Généraux or French College of General Hospital Pulmonologists (CPHG) with the labelling of Institut National du Cancer or French National Cancer Institute (INCa) and FHF-CNCR, the endowment funds of Fondation du Souffle, Le Nouveau Souffle, Couleur Espoir, and financial support of following pharmaceutical industry partners: AstraZeneca, Bayer, Boehringer Ingelheim, BMS, Chugai, Janssen, MSD, Lilly, Pfizer, Roche, Sanofi and Takeda.

The authors have no financial and personal relationship with other people or organization that could inappropriately bias this work. The Scientific Committee is independent of the industrial partners.

CONCLUSION

Lung cancer characteristics have changed significantly over the past 20 years in France.

The patients at diagnosis are older, women's proportion has significantly increased, never-smokers are more numerous and adenocarcinomas, already predominant in the previous cohort, increase further in 2020, molecular biology testing is carried out routinely in real-life setting in non-academic public hospital. KBP-CPHG studies represent a unique data source on lung cancer evolution by decades in France over the last 20 years.

Contact: kbp-2020-cphg@margauxorange.com