Carcinome épidermoïde du sein, existe-t-il deux entités avec un pronostic distinct ? Une série de 39 patientes à Gustave Roussy

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Introduction

Squamous cell carcinoma (SCC) of the breast is a rare entity of breast cancer, with a very poor prognosis, and whose pathophysiology is still unwell established. Therapeutic management is very heterogeneous due to its incomplete understanding. Nevertheless, it seems that two histological entities can be distinguished: pure SCC close to the cutaneous origin, and metaplastic squamous breast cancer (MSBC).

The aim of this study is therefore to assess the difference in survival according to the histological type (SCC or MSBC) and to describe the demographic, clinical and therapeutic characteristics of the two underlying populations.

Materials & Methods

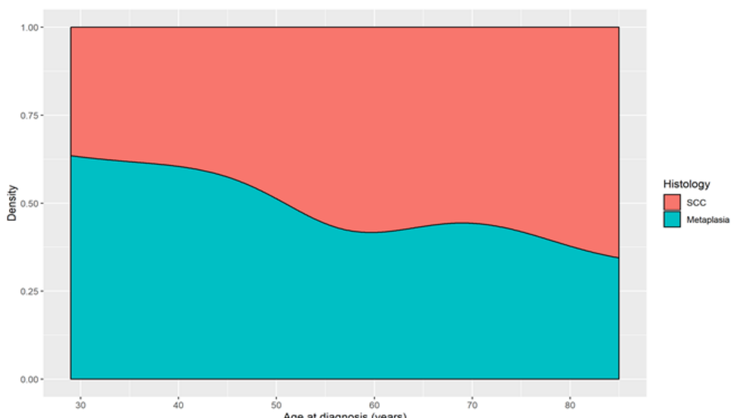
Our data came from a monocentric retrospective series of 39 patients treated between 1985 and 2018 at the Gustave Roussy Institute (France) for a breast SCC

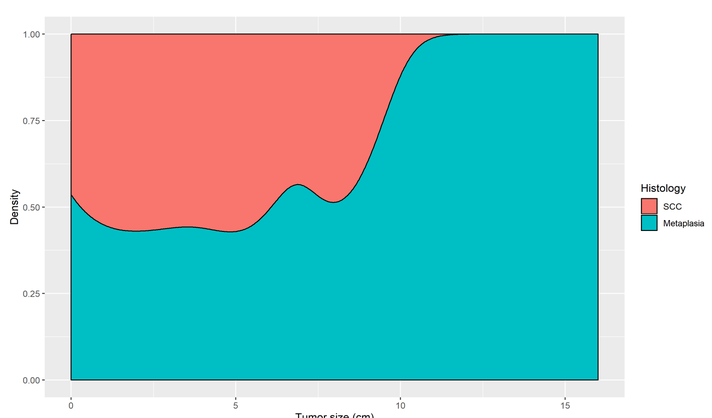
Results

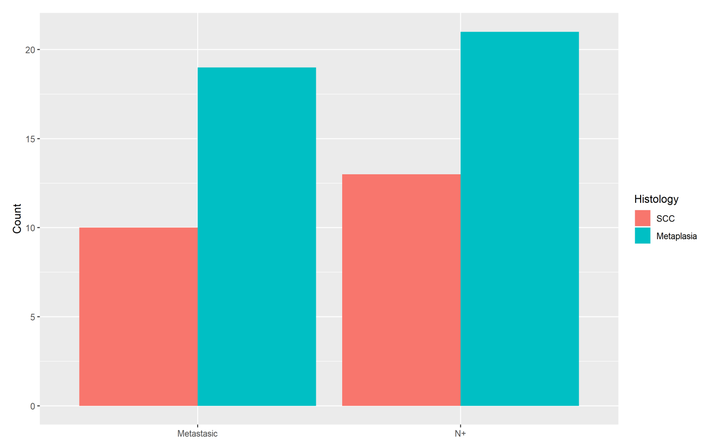
A total of 39 cases of SCC of the breast were diagnosed during the study period, on which included, 64% had MSBC and 36% had a pure form.
Median age at diagnosis was 49 years (Range: 39.5 - 67.5 years), median tumor size was 3.5 cm (Range: 1.5-16 cm) and a majority of cases had almost tumor stage T2 at presentation (33/39 patients).
Excluding missing data, 27 (79.5%) patients had a pre therapeutic imaging which allowed the diagnosis of distant metastasis (bones or lung) in 9 (31%) patients.
Eight (40%) patients had metastatic lymph nodes confirmed on the definitive histology.

Variables		Value
Age (years)	Min / Max	29 / 85
	Med [IQR]	49 [39.5-67.5]
Abscess	0	32 (86.49%)
	1	5 (13.51%)
	NA	2
Node	0	7 (18.92%)
	1	30 (81.08%)
	NA	2
Ulceration	0	30 (81.08%)
	1	7 (18.92%)
	NA	2
Node tumefaction	0	32 (86.49%)
	1	5 (13.51%)
	NA	2
Tumor size (cm)	Min / Max	2 / 16
	Med [IQR]	3.5 [2-5]
	N (NA)	37 (2)
Extension assessment	0	12 (30.7%)
	1	27 (69.3%)
Metastasis	0	20 (68.97%)
	1	9 (31.03%)
	NA	10
Histology	Pure SCC	14 (35.9%)
	MSBC	25 (64.1%)
Nottingham Grade	1	4 (10.81%)
	2	4 (10.81%)
	3	29 (78.38%)
	NA	2
Lymph node involvement	0	18 (52.94%)
	1	16 (47.06%)
	NA	5

MSBC seemed more frequently in young patients and in bigger lesion than pure SCC (figures 1 and 2). But this difference is not statically significant (respectively p= 0.2 and p= 0.4).
Also, metaplasia of SCC seemed more frequently associated with metastatic lymphatic node and distant metastasis than pure SCC (figure 3). But regardless of this visual trend, there was not significant difference between pure SCC and MSBC groups regarding lymphatic node, and distant metastasis at the beginning of the diagnosis (respectively p= 0.2 and p= 0.4).

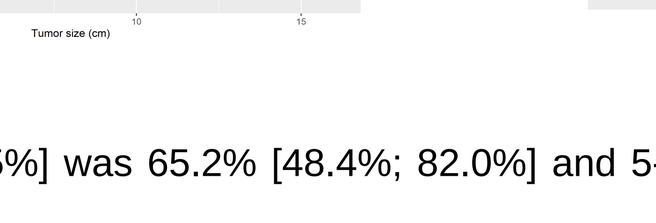


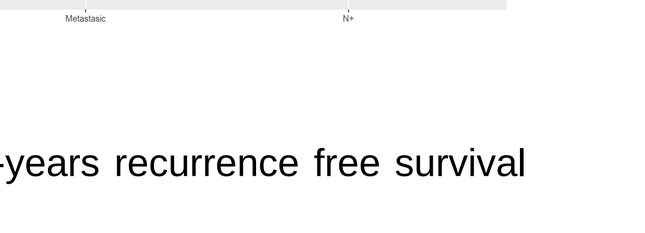




In the whole population, 5-years overall survival (OS) [IC95%] was 65.2% [48.4%; 82.0%] and 5-years recurrence free survival (RFS) [IC95%] was 63.5% [46.8%; 80.2%].
The 3-years OS and RFS were significantly different according to clinical presentation, size of carcinoma and histology (table 2).
The 3-years OS of patients with MBSC was significantly lower than pure SCC with HR: 9.5 IC95% [1.2; 73.1], p=0.008 (figure 6).
The 3-years RFS of patients with MSBC was also significantly lower than pure SCC with HR: 11.9 IC95% [1.6; 90.7], p=0.002 (figure 7).

Variables		3-years OS	P value	3-years RFS	P value
Abscess	0	76% [61.3%-94.8%]	0.009	70% [54.0%-89.7%]	0.017
	1	40% [13.7%-100.0%]		40% [13.7%-100.0%]	
Tumor size (cm)	-	-	0.001	-	0.004
Surgery	incision	33% [6.7%-100.0%]	0.008	0%	0.005
	mastectomy	78% [60.8%-99.6%]		78% [61.4%-99.6%]	
	Lumpectomy	73% [50.6%-100.0%]		68% [46.5%-99.8%]	
Histology	SCC	100% [100%-100%]	0.008	100% [100%-100%]	0.002
	Metaplasia	59% [41.9%-83.7%]		50% [33.3%-76.3%]	





Conclusion/Perspectives

The histological nature of SCC seems to bring fundamental new elements to the therapeutic management as it impacts recurrence and survival.

It should therefore be better characterized at diagnosis in order to possibly adapt treatments

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