

Predictive factors for adrenal metastasis in extra-adrenal cancer patients with an adrenal mass

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Purpose

- Adrenal gland is a frequent site for metastasis in patients with extra-adrenal malignancy.
- It is necessary to distinguish between benign adrenal lesion and metastasis in extra-adrenal cancer patients with adrenal mass. We performed a retrospective evaluation of the predictive factors for adrenal metastasis in extra-adrenal cancer patient with adrenal mass.

Materials and Methods

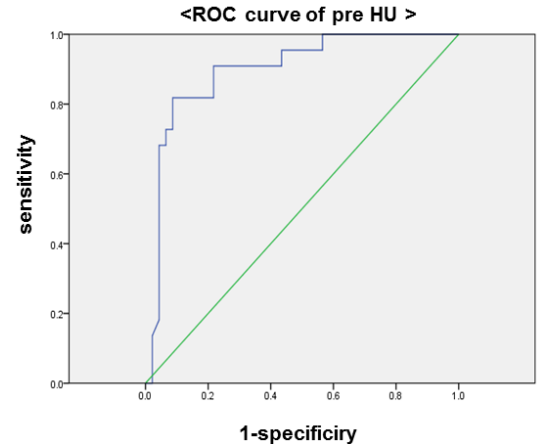
- Duration : Sep. 2003 – Jun. 2016
- 68 extra-adrenal cancer patients with adrenal mass who underwent adrenalectomy
- Clinical factors, radiologic features on CT such as location, size, pre-contrast HU, and synchronous or metachronous adrenal mass at the time of cancer diagnosis were analyzed.

Results

Cut-off value : 36.24

Specificity 91.3%

Sensitivity 81.8%



<Univariate and multivariate analysis for adrenal metastasis>

	Meta (N=22)	NoMeta (N=46)	p-Value		OR(95% CI)
			Univariate	Multivariate	
Age, yr	58.9±12.5	58.8±13.1	0.98		
Size, cm	5.06±3.26	2.97±1.93	0.01	0.161	1.328(0.893-1.973)
pre HU	41.1±10.3	16.9±19.2	0.000	0.001	1.105(1.042-1.172)
BMI, kg/m ²	23.1±2.72	24.4±4.2	0.218		
Sex, n(%)			0.043	0.019	9.782(1.462-65.461)
Male	17(77.3)	24(52.2)			
Female	5(22.7)	22(47.8)			
Location, n(%)			0.085	0.075	5.072(0.847-30.381)
Right	13(59.1)	17(37.0)			
Left	9(40.9)	29(63.0)			
Smoking, n(%)	9(40.9)	10(21.7)	0.099		
HTN, n(%)	8(36.4)	26(55.3)	0.12		
DM, n(%)	4(18.2)	11(23.9)	0.594		
Synchronous or Metachronus, n(%)			0.000	0.007	11.090(1.937-63.490)
Synchronous	6(27.3)	36(78.3)			
Metachronus	16(72.7)	10(21.7)			
Metachronus Duration, months	16.7±13.2	20.9±16.6	0.479		

Conclusions

- High pre-contrast HU (> 36), male patients, and metachronous adrenal mass at the time of cancer diagnosis are predictive factors for adrenal metastasis in extra-adrenal cancer patient with adrenal mass.