

## Article

# A Pilot Study on Efficacy of Lipid Bubbles for Theranostics in Dogs with Tumors

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## Supplementary Material

### Anti-tumor effects of LBs combined with US and liposomal doxorubicin

**Table S1.** Summary of the three dogs included in the clinical study of the combination treatment of LBs, US, and Doxil.

9	Breed	Age (y)	Sex	Weight (kg)	Tumor type	Tumor site	Simultaneous therapy
1	Papillon	14	Spayed female	2.5	Hemangiopericytoma	Perianal	None
2	Toy Poodle	7	Female	3.8	Ceruminous gland adenocarcinoma	Left ear	None
3	Welsh Corgi	10	Female	10.1	Thyroid carcinoma (suspected)	Thyroid	Toceranib

**Table S2.** Summary of the clinical course and treatment of case No. 1.

Day	Events	Tumor size (cm <sup>3</sup> )	Doxil dose (mg/m <sup>2</sup> )	LBs dose (mL)	Frequency (MHz)	US output setting Power Intensity (W/cm <sup>2</sup> )	Duty Cycle (%)	Time (min)
0	Inclusion	178.0	16	0.2	1	2	50	30
9	1st treatment	175.7	16	0.2	1	2	50	20
23	2nd treatment	85.6	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
28	Poor general condition Treatment postponed	77.8	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
52	Slight improvement of general condition Treatment postponed	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
52	Death	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>

<sup>1</sup> n/a, not assessed.

**Table S3.** Summary of the clinical course and treatment of case No. 2.

Day	Events	Tumor size (cm <sup>3</sup> )	Doxil dose (mg/m <sup>2</sup> )	LBs dose (mL)	Frequency (MHz)	US output setting Power Intensity (W/cm <sup>2</sup> )	Duty Cycle (%)	Time (min)
0	Inclusion	4.4	16	0.2	1	2	50	15

	<b>CT examination</b>				1	2	100	15
	<b>1<sup>st</sup> treatment</b>							
7	2 <sup>nd</sup> treatment	3.7	16	0.2	1	2	50	40
29	CT examination	3.7	8	0.4	1	2	50	40
	3 <sup>rd</sup> treatment							
43	4 <sup>th</sup> treatment	2.7	8	0.4	1	2	50	30
57	5 <sup>th</sup> treatment	2.9	12.5	0.2	1	2	50	30
71	6 <sup>th</sup> treatment	2.4	14.2	0.4	1	2	50	30
78	Inflammation of the lesion	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
	Treatment postponed							
113	Poor general condition	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
	Treatment postponed							
127	Death	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>

<sup>1</sup> n/a, not assessed.**Table S4.** Summary of the clinical course and treatment of case No. 3.

Day	Events	Tumor size (cm <sup>3</sup> )	Doxil dose (mg/m <sup>2</sup> )	LBs dose (mL)	Frequency (MHz)	US output setting Power Intensity (W/cm <sup>2</sup> )	Duty Cycle (%)	Time (min)
	<b>Inclusion</b>							
0	<b>CT examination</b>	<b>41.0</b>	<b>15</b>	0.2	1	2	50	15
	<b>1<sup>st</sup> treatment</b>							
15	2 <sup>nd</sup> treatment	28.3	15	0.3	1	2	50	15
36	3 <sup>rd</sup> treatment	38.2	15	0.3	1	2	50	15
	CT examination							
58	4 <sup>th</sup> treatment	16.6	15	0.3	1	2	50	15
82	Poor general condition	18.1	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
	Treatment postponed							
83	Poor general condition	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
	The last follow-up							

<sup>1</sup> n/a, not assessed.