

# Retrospective study of canine cutaneous mast cell tumors: Association of histopathological classification and clinical prognosis

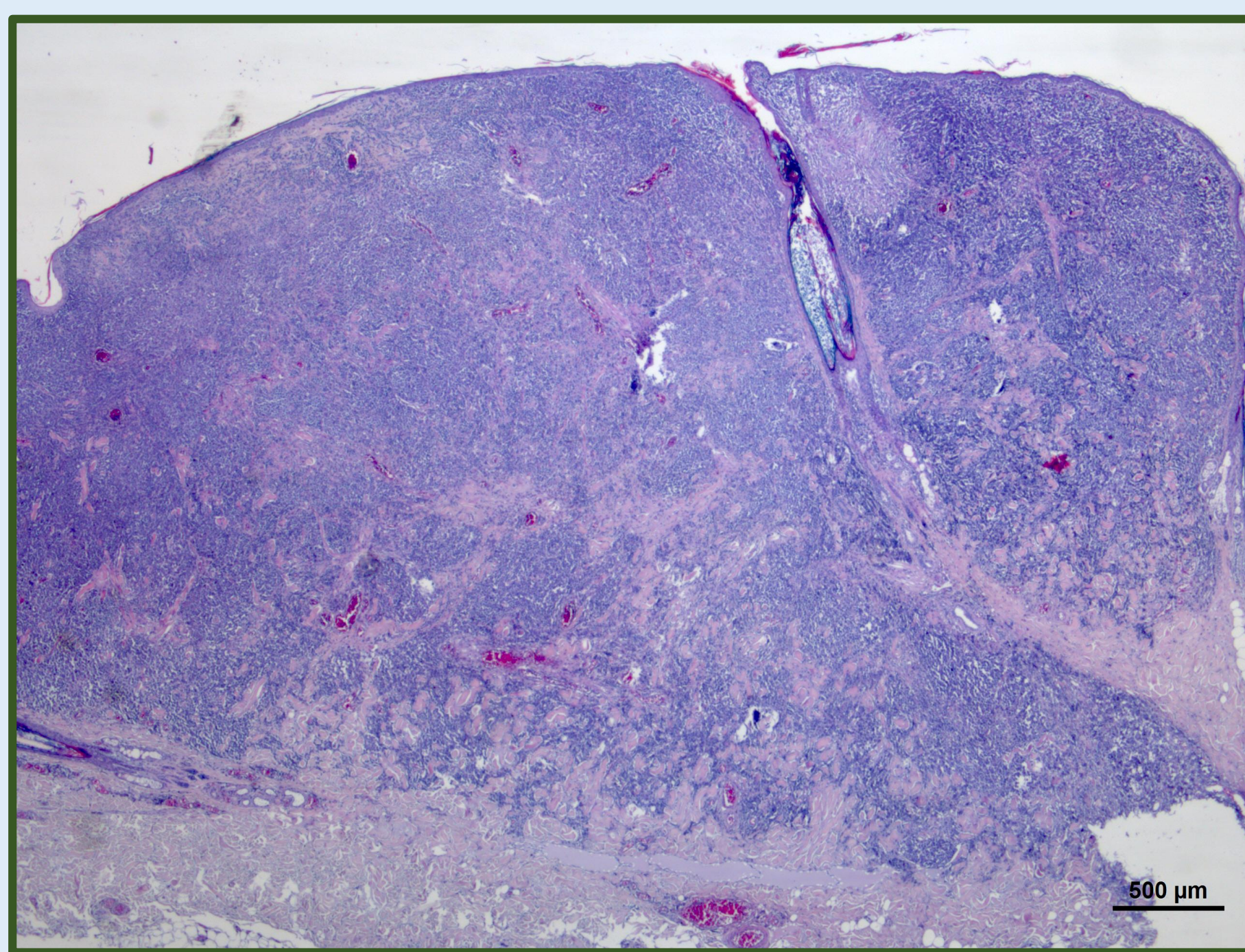
**Bernat Martí Garcia**

Bachelor's degree in Veterinary Medicine

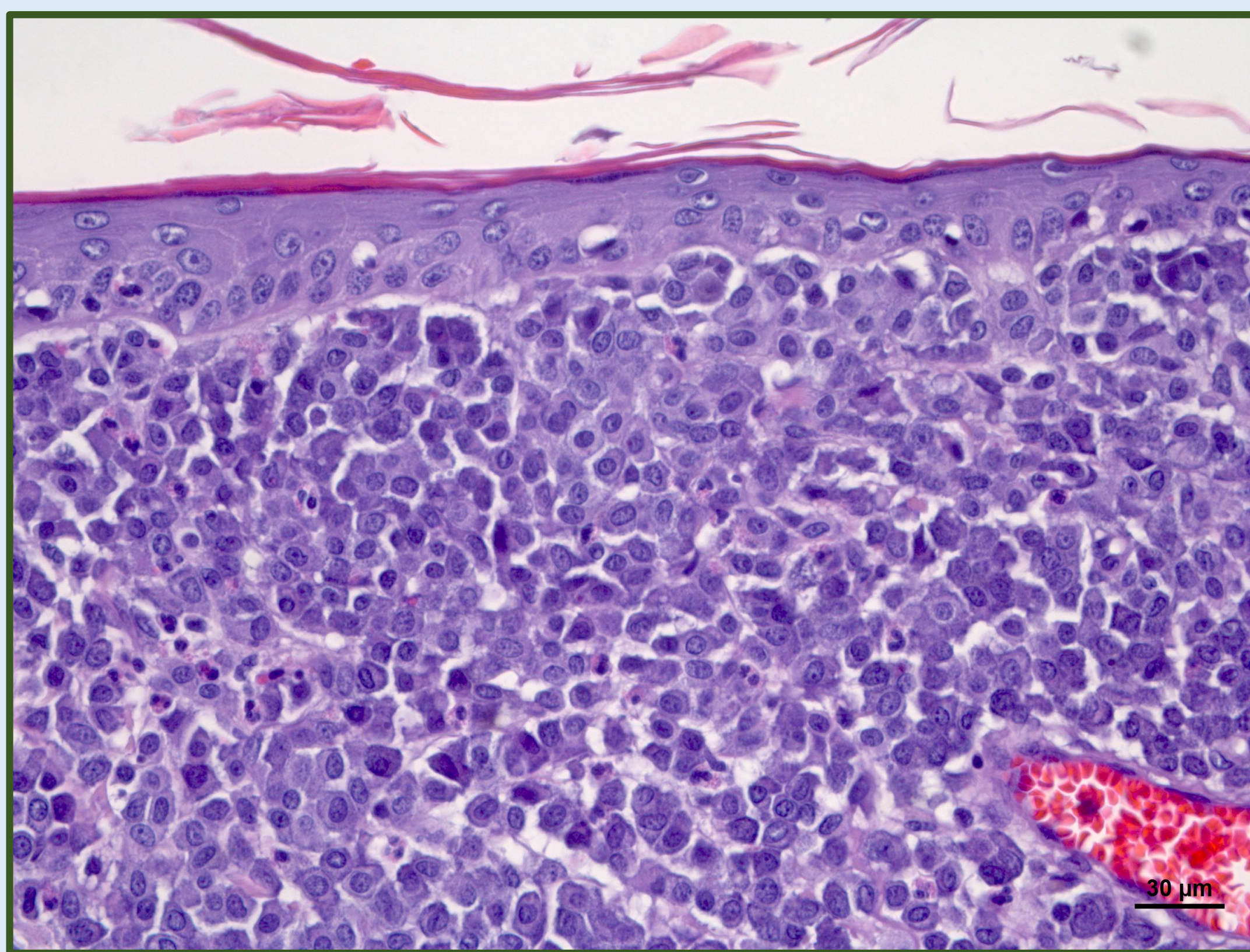
June 2017

## OBJECTIVES

- ✓ To classify a group of canine **cutaneous** mast cell tumor (MCT) biopsies according to two accepted histopathological grading systems: Patnaik's system and Kiupel's system.
- ✓ To study the relationship of these histopathological grading systems with different prognostic indicators with clinical value.



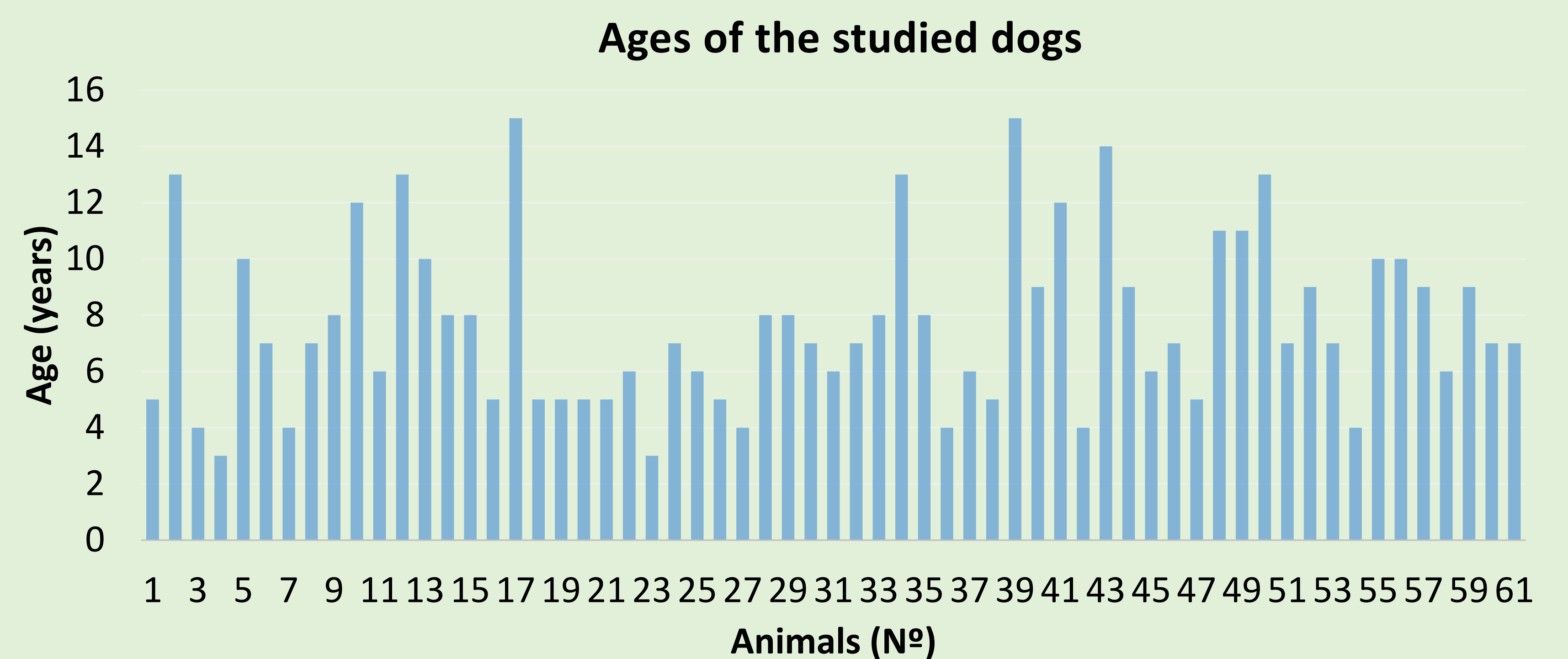
**Fig. 1.** Histologic section of a canine cutaneous MCT (10X). Source: *Servei Diagnòstic de Patologia Veterinària UAB*.



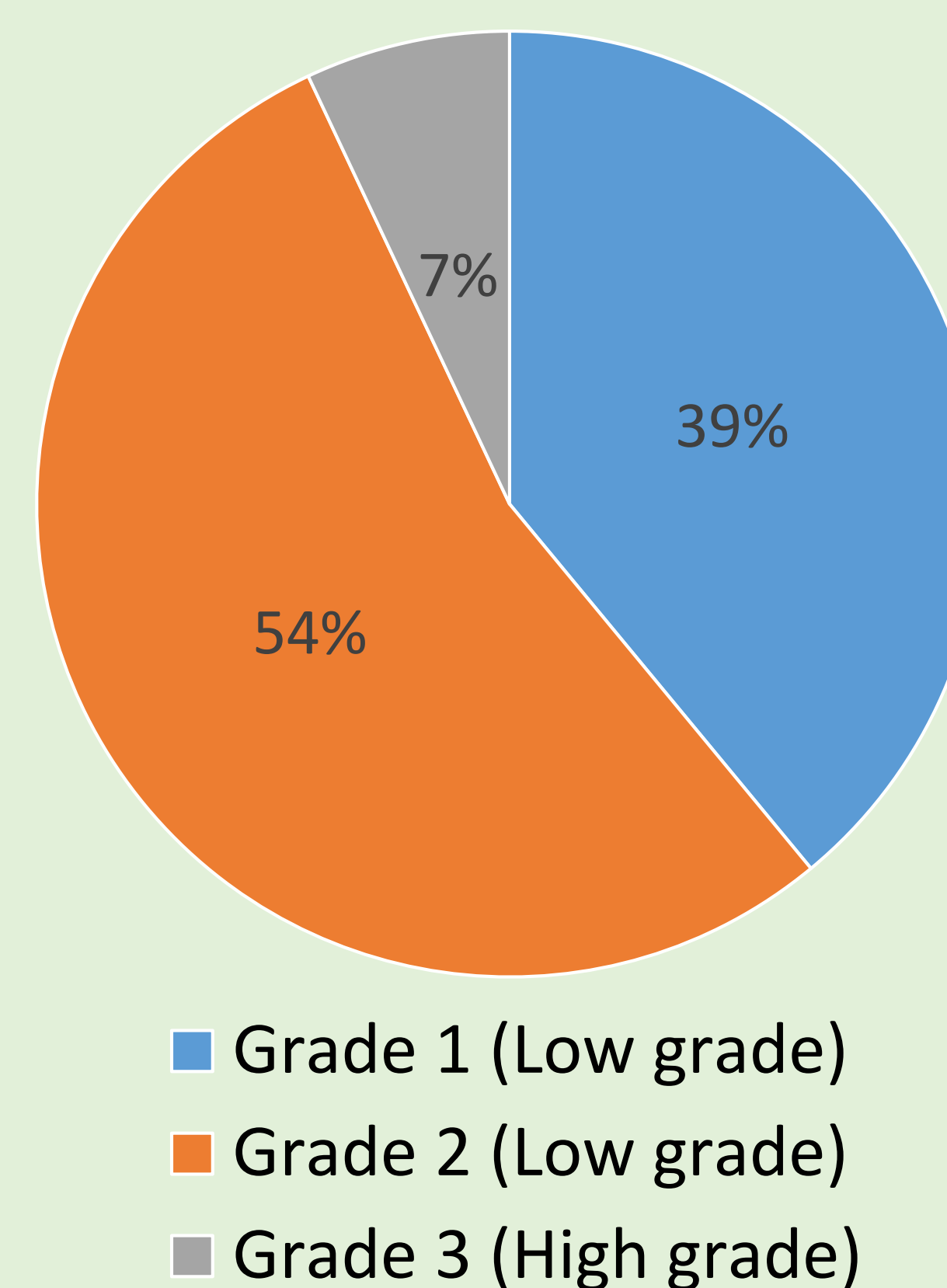
**Fig. 2.** Histologic section of a grade 1 (Patnaik) or low grade of malignancy (Kiupel) canine cutaneous MCT (40X). Source: *Servei Diagnòstic de Patologia Veterinària UAB*

## RESULTS

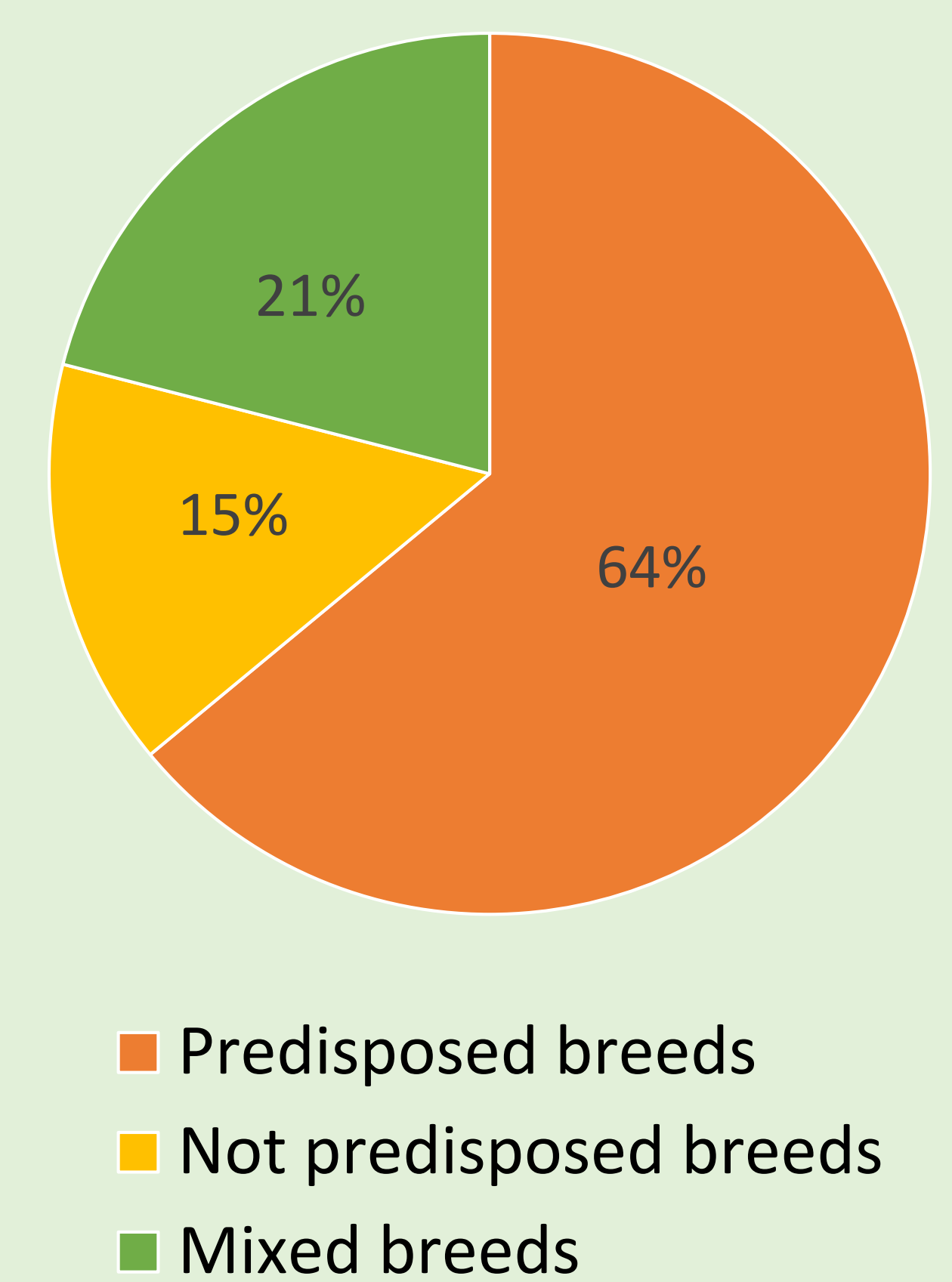
Mean age  $\pm \sigma$ : **7.7  $\pm$  3.04**



### MCT biopsies for each histopathological grade



### Breeds suffering from MCT



**Survival times up to 12 or more months when Patnaik's histopathological grading system is combined with other prognostic indicators**

	Survival time in 3 months		Survival time in 12 months	
	p-value	Odds ratio	p-value	Odds ratio
Age	0.174	1.201	0.063	0.817
Gender	0.452	0.545	0.657	0.764
Mixed breed	0.557	0.555	0.493	1.736
Tumor location	0.194	0.137	0.153	4.493
Tumor size	0.431	0.867	0.634	0.932
Margins	0.632	1.517	0.288	2.086
Patnaik	<b>0.021</b>	8.625	<b>0.056</b>	0.325

## CONCLUSIONS

- ✓ Most of MCT biopsies were classified as low grade of malignancy (Kiupel) or grades 1 or 2 (Patnaik).
- ✓ Patnaik's histopathological grading system is useful to predict survival times.

## REFERENCES

1. Kiupel M, Webster JD, Bailey KL, Best S, DeLay J, Detrisac CJ, Fitzgerald SD, Gamble D, Ginn PE, Goldschmidt MH, et al. 2011. Proposal of a 2-tier histologic grading system for canine cutaneous mast cell tumors to more accurately predict biological behavior. *Vet. Pathol.* 48:147–55. [<http://www.ncbi.nlm.nih.gov/pubmed/21062911>]
2. Patnaik AK, Ehler WJ, Macewen EG. 1984. Canine Cutaneous Mast Cell Tumor: Morphologic Grading and Survival Time in 83 Dogs. *Vet. Pathol* 21:469–474.
3. Sabbatini S, Scarpa F, Berlato D, Bettini G. 2015. Histologic grading of canine mast cell tumor: is 2 better than 3? *Vet. Pathol.* 52:70–3. [<http://www.ncbi.nlm.nih.gov/pubmed/24513799>]