# Recognition and evaluation of pain in dogs with otitis Clinical study design

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#### - INTRODUCTION

Otitis externa (OE) and otitis media (OM) are the inflammation of the external ear canal and the middle ear respectively. Otalgia is one of the clinical findings, combined with neck and temporo-mandibular joint pain. Glucocorticoids are widely used in its treatment, but there is little evidence of analgesic drugs use.

# - OBJECTIVES

- Characterization of Spanish veterinary dermatologists' attitudes regarding pain assessment and treatment of canine otitis.
- Design of a pain-oriented diagnostic approach of dogs with auricular disease for study of pain and correlation with quality of life (QoL) and clinical severity.

### • RESULTS

Table 1. Opinions of GEDA members on recognition and treatment of pain.

	n	Agree (%)	Somewha t agree (%)	Cannot say (%)	Somewhat disagree (%)	Disagree (%)
It is difficult to recognize pain in dogs	54	11 (20,4)	25 (46,3)	1 (1,9)	13 (24,1)	4 (7,4)
The owner interpret pain behavior better than a veterinarian	54	27 (50)	17 (31,5)	0 (0)	5 (9,3)	5 (9,3)
Owners insist on analgesics treatment	54	8 (14,8)	22 (40,7)	0 (0)	13 (24,1)	11 (20,4)

n = total number of responses, SD = standard deviation

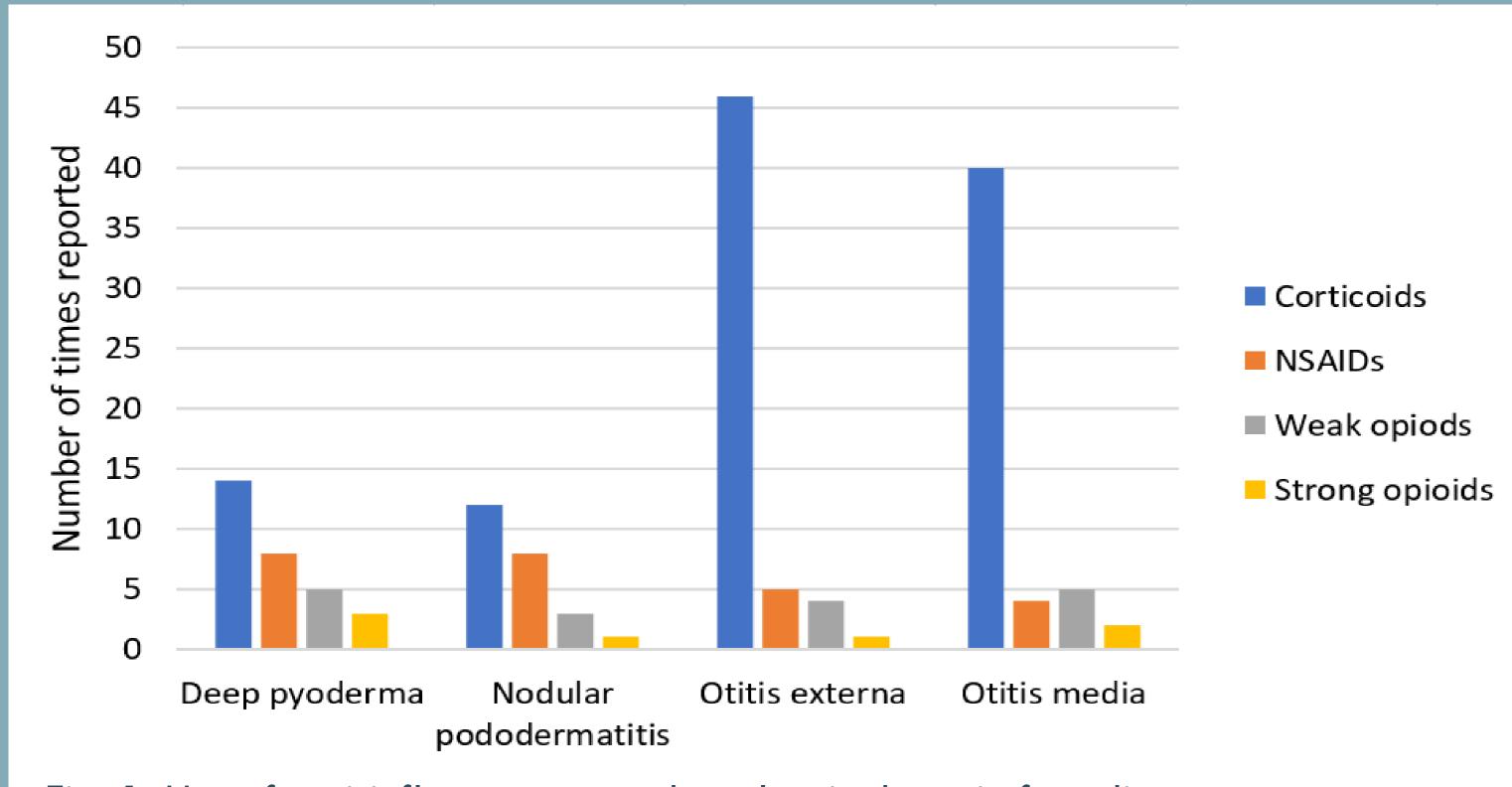


Fig. 1. Use of anti-inflammatory and analgesic drugs in four diseases.

#### MATERIALS AND METHODS •

- 1 A questionnaire about attitudes in front of pain assessment and treatment. Comparison of four dermatological conditions.
- 2 Pain assessment at palpation of external ear canal, region of tympanic bulla and opening of the mouth by a simple descriptive score and visual analogue scale (VAS).

Evaluation of chonic pain by a self-made protocol using pressure threshold and response to non-painful stimuli (repeated 2cm-long brush-stroke) (1).

Tutor's assessed instensity of dog's pain with a brief questionnaire of canine pain, consisiting in numerical rating scales  $(0-10)^{(2)}$ .

Clinical severity is measured by the OTI-3 scale<sup>(3)</sup>.

Quality of life (QoL) of owners and dogs is evaluated by Noli's questionnaire of QoL in dermatology patients<sup>(4)</sup>.

Table 2. Means  $\pm$  SD, medians, and maximums and minimums of pain (1-10) causes by four dermatological diseases.

	n	Mean ± SD	Median	Min-Max	Significantly different from
a) Deep pyoderma	54	6.48+1.96	7	1-10	b, d
b) Nodular pododerm atitis	54	7.31+1.26	7	3-9	a, d
c) External otitis	54	7.11+1.34	7	3-10	d
d) Otitis media	54	8.19+1.48	8	2-10	a, b, c

## DISCUSSION AND CONCLUSIONS

Veterinarians have **difficulties assessing pain** and agree that owner's appreciation of behaviour changes could be trustworthy.

OE and OM are considered painful conditions, especially OM, possibly for its usually chronic nature and involvement of bony structures. Consequently, more strong analgesics are used. Nevertheless, in general, little analgesia is used in OE (24.1%) and OM (27.8%), probably endorsed by inflammatory pain alleviation effects of corticosteroids.

The pain-oriented diagnostic tool developed will be useful to recognize and assess pain in OE and OM in order to establish a correct management of pain and ensure quality of life of dogs and owners.

#### BIBLIOGRAPHY

- 1. ANZCA (Australian and New Zealand College of Anaesthetists), Faculty of Pain Medicine. 2018. Pain-Orientated Sensory Testing (POST) Guidelines. :1-6
- 2. Brown DC, Boston RC, Coyne JC, Farrar JT. 2007. Development and psychometric testing of an instrument designed to measure chronic pain in dogs with osteoarthritis. Am J Vet Res. 68(6):631–637.
- 3. Nuttall T, Bensignor E. 2014. A pilot study to develop an objective clinical score for canine otitis externa. Vet Dermatol. 25(6):530-e92.
- 4. Noli C, Minafò G, Galzerano M. 2011. Quality of life of dogs with skin diseases and their owners. Part 1: Development and validation of a questionnaire. Vet Dermatol. 22(4):335–343.