MORTALITY STUDY ABOUT CANINE POPULATION FROM BARCELONA

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INTRODUCTION

- Knowing about pet's death causes is helpful for human and animal health.
- Few studies like this have been done in the past
- This is the first mortality study about canine population done in Spain
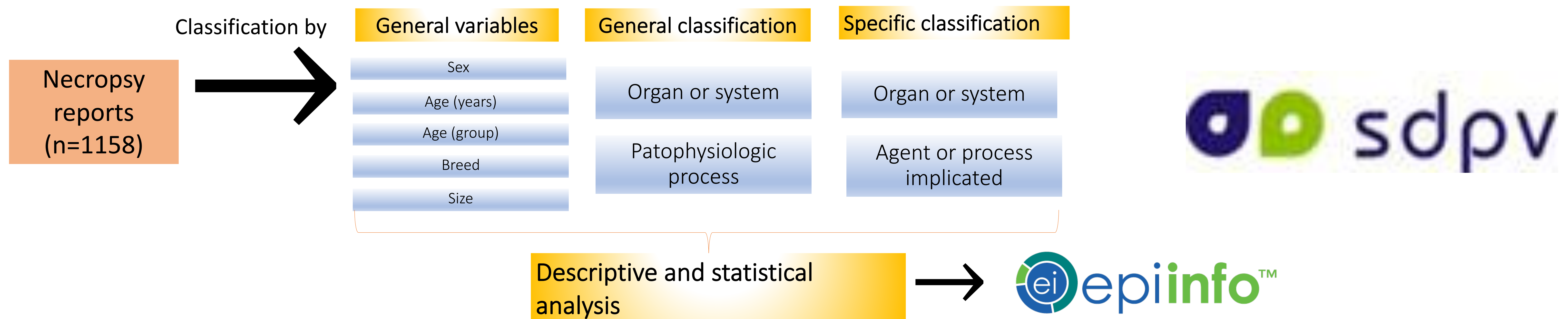
OBJECTIVES

- To make an aproximation to health status of canine population from Barcelona
- To stablish relations among the diseases of the population and the geographic zone
- To identify risk factors of the most common problems

BACKGROUND

- The most common death's causes are infections and neoplasm
- Large breeds die younger than smaller and they have a higher incidence of neoplasm and gastrointestinal problems.
- Crossbred's longevity is higher than purebred.

MATERIAL AND METHODS

Necropsy reports (n=1158)

Classification by

General variables
- Sex
- Age (years)
- Age (group)
- Breed
- Size

General classification
- Organ or system
- Patophysiologic process

Specific classification
- Organ or system
- Agent or process implicated

Descriptive and statistical analysis → epiinfo™

sdpv

RESULTS

Table 1: Organ/system's frequency and median age of affection

Organ	Frequency N (%)	Median age (years)
Alimentary system	232 (20,03)	4
Multiple organs	154 (13,3)	5
Respiratory	138 (11,92)	3
Nervous system	119 (10,28)	7
Cardiovascular	107 (9,24)	9
Unknown	105 (9,07)	5
Hemopoietic/Lymphatic	85 (7,34)	7
Urogenital	74 (6,39)	8
Hepatic	37 (3,2)	9
Endocrine	28 (2,42)	11,5
Mammary gland	24 (2,07)	10
Dermatologic	21 (1,81)	8
Ophthalmologic	3 (0,26)	2

Table 2: Patophysiologic process' frequency and median age of affection

Patophysiologic process	Frequency N (%)	Median age (years/months)
Neoplasm	326 (28,15)	10
Infectious	237 (20,47)	10 months
Hemodynamic	112 (9,67)	8
Inflammatory	92 (7,94)	4
Trauma	81 (6,99)	5
Inconclusive	77 (6,65)	3
Degenerative/Accumulation	66 (5,7)	9
Intoxication	50 (4,32)	4
Surgery	41 (3,54)	4
Malformation	40 (3,45)	9 months
Others	21 (1,81)	5
Idiopathic	15 (1,3)	3

Table 3: Risk factor among concrete organ/pathophysiologic process and size

Size	Organ/Pathophysiologic process	OR (95% n.c.)	p-value
Small	Infectious	1,93 (1,43, 2,65)	<0,0001
	Inflammatory	1,58 (1,01, 2,49)	<0,01
	Trauma	1,74 (1,08, 2,81)	0,01
	Alimentary system	1,79 (1,31, 2,45)	<0,0001
	Parvovirus	6,5 (4,51, 12,43)	<0,0001
Medium	Lymphoma	2,21 (1,17, 4,17)	<0,01
Large	Hemodynamic	2,25 (1,5, 3,34)	<0,0001
	Neoplasm	1,33 (1,01, 1,75)	0,025
	Hemopoietic/Lymphatic	1,75 (1,11, 2,77)	<0,001
	Hemangiosarcoma	2,31 (1,38, 3,84)	<0,001
	Gastric volvulus	6,63 (3,41, 12,88)	<0,0001

Table 4: Risk factor among concrete organ/pathophysiologic process and breed

Breed	Organ/Pathophysiologic process	OR (95% n.c.)	p-value
Crossbred	Hepatic	3,2 (1,18, 6,35)	<0,001
	Trauma	1,84 (1,11, 3,11)	0,01
	Hemopoietic/lymphatic	0,5 (0,24, 1,05)	0,02
	Alimentary system	0,66 (0,41, 0,97)	0,01
Brachiocephalic	Neoplasm	1,5 (1,11, 1,93)	<0,01
	Malformations	2,1 (1,63, 2,57)	0,02
	Infectious	0,5 (0,27, 0,73)	<0,001
	Parvovirus	0,29 (0,15, 0,49)	0,0001
German Shepherd	Hemangiosarcoma	3,71 (2,01, 6,72)	<0,0001
	Gastric volvulus	4,9 (2,51, 9,77)	<0,0001
Bòxer	Neoplasm	4,27 (2,39, 7,6)	<0,0001
	Nervous system	3,6 (1,89, 6,89)	<0,0001
Bulldog	Malformations	5,7 (2,76, 12,03)	<0,001
	Respiratory	2,13 (1,21, 3,77)	<0,01
Golden Retriever	Neoplasm	1,88 (1,02, 3,51)	0,02
Cocker Spaniel	Neoplasm	4,64 (2,37, 9,09)	<0,0001
	Lymphoma	7 (2,89, 17,09)	0,0001

Comparation of longevity (years)
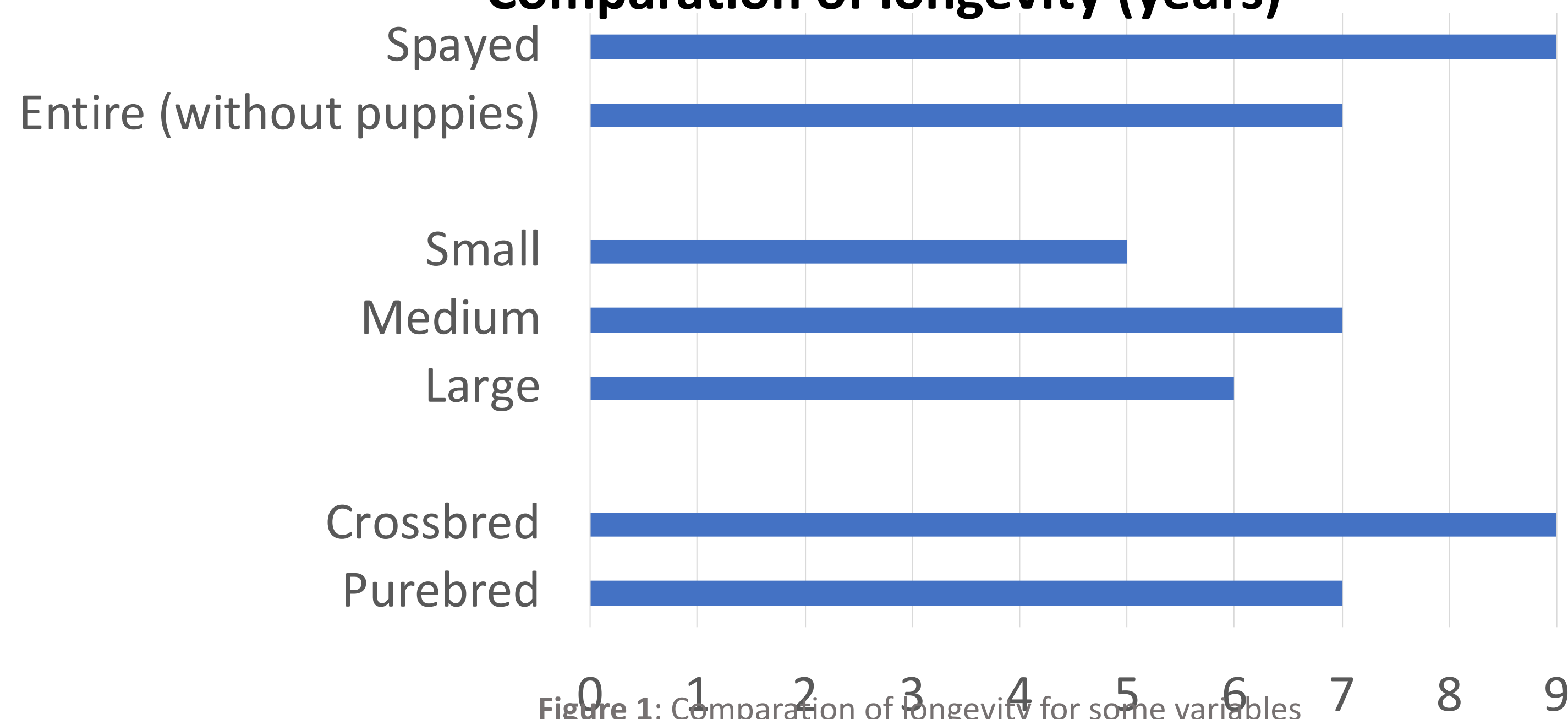
Figure 1: Comparation of longevity for some variables

(Spayed, Entire (without puppies), Small, Medium, Large, Crossbred, Purebred; axis 0–9)

CONCLUSIONS

- The most affected organs are the alimentary and the respiratory system.
- The most frequent pathophysiological processes are neoplasm (in old dogs) and infectious disease (in young animals).
- There are some interesting facts such as small dogs living less than large, the higher risk that small breeds have to be infected by *Parvovirus*, German Shepherd to suffer hemangiosarcoma and gastric volvulus or Cocker to suffer neoplasm.
- Data collected from necropsy reports provides a valuable information. However, other methods for gathering information could be better to confirm the results obtained.