

# Incentivizing cat electronic identification



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## INTRODUCTION

Pet identification and registration play a key role in guaranteeing both animal health and welfare. In addition, these systems stimulate pet responsible ownership, helping to control the phenomenon of straying and its detrimental consequences. Transponder implantation (micro-chipping) provides the only permanent and effective identification system. This method is currently the most frequently used for dogs, being also compulsory in some Countries, but it is still not common for cats. Cat electronic identification seems to raise general public skepticism, especially concerning its safety. However, no scientific studies have tested its efficacy in time or evaluated the frequency of adverse effects over time in domestic felines.

## aim

**Aim of this study was to provide statistical evidence of electronic identification long-term effects on a sample of 126 cats.**

## MATERIALS AND METHODS



Animals lived in a controlled environment i.e. open spaces but with no possibility to escape, as catteries for abandoned cats. The sample was divided into two groups, balanced by sex, implanted with transponders of different sizes (2.12 x 12 and 1.41 x 9 mm, **Figure 1**) on the left side of the neck (**Table 1**).

Periodical clinical examinations were carried out 24 hours, 7 days, 21 days, 60 days and 180 days after implantation to look for migration events and local adverse reactions. All activities were carried out by a trained veterinarian.

A smartphone application, connected to the transponder reader via Bluetooth, allowed to create a new file with all the information about the identified subject (**Figure 2**).

During the follow ups, the application automatically opened the cat record form (linked to its transponder number) to record the clinical information of interest. Pictures and audio files could also be linked to the cat record form (**Figure 3**). This system allowed speeding data collection and avoiding subsequent data transcription.

**FIGURE 1.** Transponders of different size used for the study (a) 1.41 x 9 mm, (b) 2.12 x 12 mm.



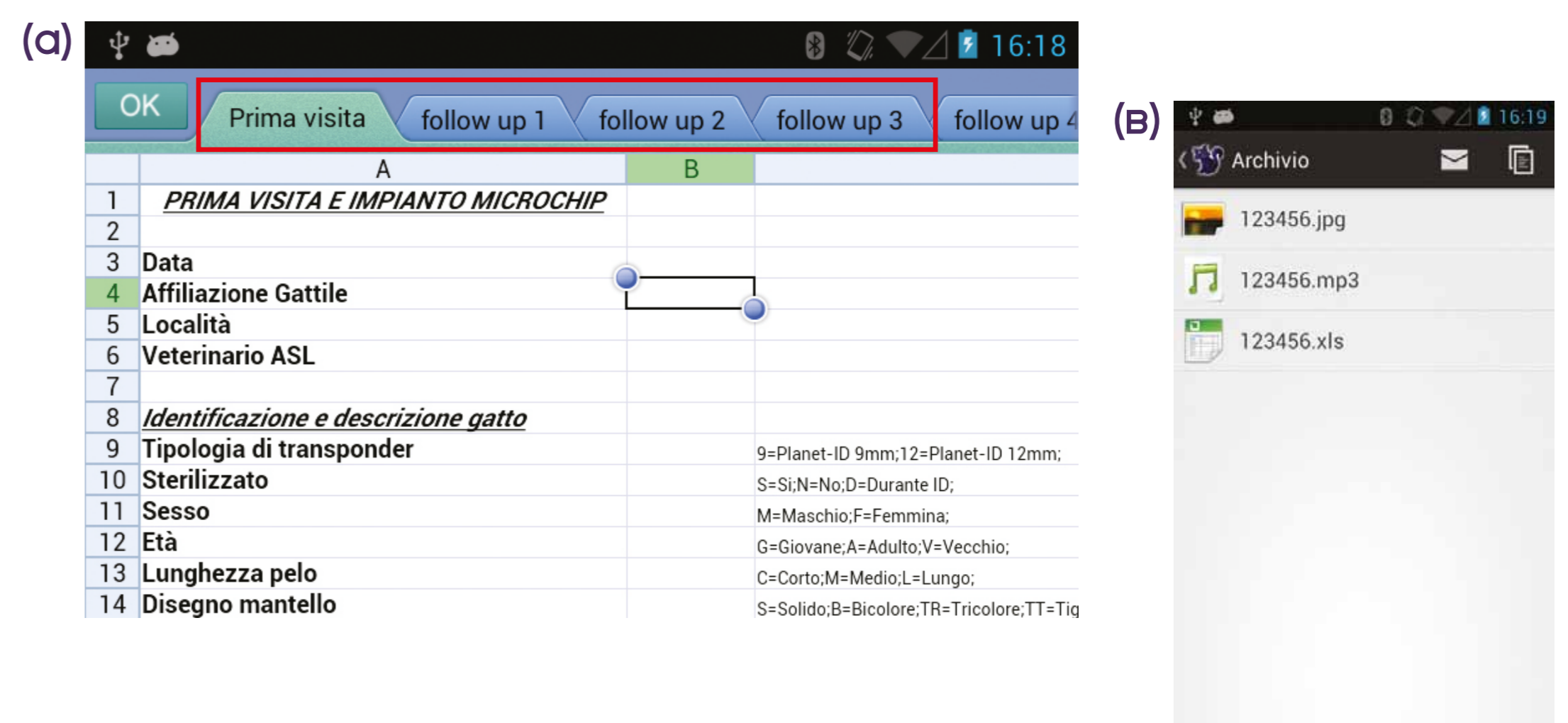
**TABLE 1.**

Transponder	M	F	Total
9 mm	22	35	57
12 mm	46	23	69
<b>Total</b>	<b>68</b>	<b>58</b>	<b>126</b>

**FIGURE 2.**



**FIGURE 3.** (a) Individual cat record form with first visit and follow ups. (b) Cat record form, picture and audio files all associated to the same animal.



## RESULTS AND DISCUSSION

No adverse local reactions were observed during the follow ups. Three migration events were recorded (one 9 mm and two 12 mm) but they didn't impair reading success. Two 12 mm transponder were not found after 7 days from implantation. Fisher's test showed that migration events were not significantly associated to the transponder size or the sex of the animal ( $p > 0.05$ ).

In summary, micro-chipping did not impair cat health and welfare. Migration problems were recorded 4 times more frequently using 12 mm transponders than 9 mm ones. Although this difference was not significant, 9 mm might be proposed as standard ID for cats: being smaller (i.e. presenting 1/3 of the weight of the 2.12 x 12 mm and requiring a 25% thinner needle), they are more likely to be accepted by apprehensive owners. Electronic identification, as in other species, is a reliable identification system also for domestic felines. This traceability system could improve cat colonies management, avoiding ear notching and tattooing, as well as educating to responsible ownership.