

Prevalence of Feline Scabies at Puskesmas Bangsalsari, Jember During 2021-2023

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Abstract

Feline Scabies is a highly contagious and zoonotic skin disease. It can be transmitted from animals to humans and from person to person. This research was carried out at Puskesmas Bangsalsari, Jember, East Java. Data were collected regarding the number of patients from 2021 to 2023 and organized monthly by the occurrence of scabies in cats. The prevalence of feline scabies at Puskesmas Bangsalsari, Jember, in 2021 was 31.29%, based on 133 scabies cases out of 425 total patients. In 2022, the prevalence of feline scabies was 33.21%, based on 186 cases out of 560 total patients. In 2023, the prevalence increased to 38.53%, with 210 cases recorded from a total of 545 patients. The cumulative prevalence of feline scabies at Puskesmas Bangsalsari, Jember, from 2021 to 2023, was 34.74%, based on 529 scabies cases out of a total of 1,520 patients. The highest prevalence of feline scabies was observed in August 2023, reaching 56.71%, with 21 cases out of 37 total patients. This may have been caused by high humidity, which could affect cage hygiene and create favorable conditions for *Sarcoptes scabiei* to complete its life cycle.

Keywords

Cats, Scabies, *Sarcoptes scabiei*, Zoonotic disease

Introduction

Scabies in felines is one of the highly contagious and zoonotic skin diseases affecting many animals, including cats, which bite the animal's skin and cause itching, flaking, inflammation, and loss of hair (Lakshmi and Ayodhya, 2023). It can be transmitted from animals to humans and from person to person (Moroni *et al.*, 2022). This disease is caused by the arthropod *Sarcoptes scabiei*, a tiny mite, and *Notoedres cati* (Alautaish *et al.*, 2024).

Sarcoptes scabiei infestations have been reported in over 50 species of animals, indicating its capacity to affect a broad range of hosts across different species (Escobar *et al.*, 2022). In Indonesia, most scabies cases are found in livestock, including cows, pigs, goats, and rabbits, as well as pet animals like dogs and cats. 59,21% (45/76) of cats at the Animal Hospital of East Java Livestock Service Surabaya were infected with scabies (Ramadhanty *et al.*, 2024).

Scabies typically affects the head, face, ears, and feet (Susanto *et al.*, 2021). The clinical symptoms of scabies include intense itching, dandruff, and hair loss (Susanto *et al.*, 2020). The study found that race, age, and gender did not significantly impact scabies prevalence in cats, and there were no increased cases at the Griya Satwa Clinic, Magetan, Regency, during 2020 (Cahya *et al.*, 2022). Scabies spreads easily between cats, and if left untreated, it can lead to serious or even fatal outcomes (Amir *et al.*, 2020). Based

on the information above, this study aims to provide details about the prevalence of Feline Scabies at Puskesmas Bangsalsari, Jember, from 2021 to 2023.

Materials and Methods

This research was carried out at Puskesmas Bangsalsari, Jember. Data were collected regarding the number of patients from 2021 to 2023 and organized monthly by the occurrence of scabies in cats. The results were presented descriptively, and the prevalence obtained by formula:

$$\text{Prevalence (\%)} = \frac{\text{Scabies cases}}{\text{Total patients}} \times 100$$

Results

According to Table 1, the prevalence of feline scabies at Puskesmas Bangsalsari, Jember, in 2021 was 31.29%, based on 133 scabies cases among 425 total patients. While Table 2 shows that the prevalence of feline scabies at Puskesmas Bangsalsari, Jember, in 2022 was 33.21%, based on 186 scabies cases among 560 total patients. Table 3 shows that the prevalence of feline scabies at Puskesmas Bangsalsari, Jember, in 2023 was 38.53%, based on 210 scabies cases among 545 total patients. Based on Table 4, the prevalence of feline scabies at Puskesmas Bangsalsari, Jember, between 2021 and 2023 was 34.57%, from 529 total scabies cases with 1,520 total patients.

Table 1. Feline Scabies Prevalence at Puskesmas Bangsalsari, Jember in 2021

Month	Patients	Scabies Cases	Prevalence (%)
January	24	7	29.17
February	22	9	40.90
March	32	8	25
April	26	4	15.38
May	28	12	42.85
June	53	19	35.84
July	25	7	28
August	40	16	40
September	42	8	19.04
October	43	13	30.23
November	40	14	35
December	50	16	32
Total	425	133	
Average Prevalence			31.29

Table 2. Feline Scabies Prevalence at Puskesmas Bangsalsari, Jember in 2022

Month	Patients	Scabies Cases	Prevalence (%)
January	58	10	17.24
February	38	7	18.42
March	61	24	39.34
April	55	12	21.81
May	48	19	39.58
June	39	13	33.33
July	40	12	30
August	45	21	46.67
September	38	20	52.63
October	35	16	45.71
November	50	21	42
December	53	11	20.75
Total	560	186	
Average Prevalence			33.21

Table 3. Feline Scabies Prevalence at Puskesmas Bangsalsari, Jember in 2023

Month	Patients	Scabies Cases	Prevalence (%)
January	46	14	30.43
February	45	15	33.33
March	39	11	28.20
April	24	11	45.83
May	78	33	42.30
June	23	11	47.82
July	57	25	43.85
August	37	21	56.75
September	48	12	25
October	44	14	31.81
November	48	20	41.67
December	56	23	41.07
Total	545	210	
Average Prevalence			38.53

These results were lower than the scabies prevalence reported at the Animal Hospital of the East Java Livestock Service in 2021, which recorded 45 cases (59.21%) out of 76 cats (Ramadhanty *et al.*, 2024). The difference in research results can be attributed to the varying number of patients, with Puskesmas Bangsalsari, Jember, treating 1530 animals, while the Animal Hospital of the East Java Provincial Animal Husbandry Service treated 1352 animals. Other differences arise from the duration of the research period.

Table 4 shows that the highest prevalence of feline scabies occurred in August 2023, with a rate of 56.71% (21 scabies cases out of 37 total patients). This may have been caused by high humidity, which could affect the quality of the cage and create favorable conditions for *Sarcoptes scabiei* to complete its life cycle. The results of this study are higher than those reported by Nila *et al.* (2023), who found a feline scabies prevalence of 33.19% at the

Animal Health Center in Pemalang. Patients with scabies who visited Puskesmas Bangsalsari exhibited scabs on the face, ears, and nose, as illustrated in Figure 1. Some also exhibited redness (hyperemia) on the surface of their body, emaciation, and signs of eye irritation, as shown in Figure 2. These symptoms are consistent with the statement by Palgunadi *et al.* (2021), which states that in the early stages of scabies, affected animals experience discomfort and itching, often leading them to rub their bodies against hard objects. Red popula appears when the animal's body is scratched, causing the skin to harden like dead skin. Skin affected by scabies will thicken and harden if not treated immediately; it will spread to the whole body. Infestations of *Sarcoptes* mites are extremely itchy because they tend to burrow into moist and damaged areas of the skin (Colville and Bassert, 2016).

Table 4. Feline Scabies Prevalence at Puskesmas Bangsalsari, Jember in 2021-2023

Year	Patients	Scabies Cases	Prevalence (%)
2021	425	133	31.29
2022	560	186	33.21
2023	545	210	38.53
Total	1530	529	
Average Prevalence			34.57



Figure 1. The patient has scabs on the face, ears, and nose.



Figure 2. The patients show redness (hyperemia) on the surface of their bodies, thin body condition, and eye irritation.

Conclusion

The prevalence of feline scabies at Puskesmas Bangsalsari, Jember, from 2021 to 2023 was 34.74%, with 529 confirmed cases out of a total of 1,520 feline patients. The highest prevalence was recorded in August 2023, reaching 56.71% (21 cases out of 37 patients).

To prevent scabies in cats, cat owners should maintain proper hygiene, isolate infected cats from healthy ones, and bring their pets in for regular veterinary check-ups. Additional preventive measures include keeping the cage and the cat's environment clean, using an Elizabethan collar during treatment to prevent scratching of affected areas, and regularly disinfecting the cage.

Approval of Ethical Commission

This research does not involve the use of experimental animals; therefore, ethical approval is not required.

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Author's Contribution

RN: investigation, resources, visualization, and project administration. EML: supervision, review, and editing. TWS: supervision, review, and editing. SA: methodology and original draft writing. SuA: data curation, formal analysis, writing, review, and editing. ARK: conceptualization, review, and editing.

Conflict of Interest

The authors declare that they have no conflict of interest related to this research.

Data Availability Statement

The datasets used and analyzed in the present study are included in this article.

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