



Original Research



Scabies Prevalence on Cats and Rabbits in Animal Hospital of East Java Livestock Service on 2021

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ABSTRACT

This study aims to obtain information and data on the prevalence of scabies in cats and rabbits at the Animal Hospital of East Java Livestock Service Surabaya. The data obtained in this study are data on visitors or pet owners to the Animal Hospital in January - December 2021. The type of research is descriptive research. The data obtained tabulated and analyzed with a prevalence test and discussed descriptively. The prevalence of scabies in cats and rabbits at the study was 5.62% or 76 positive of 1352 visiting clients. Forty five of them were cats (59.21% of 76) and 31 were rabbits (40.79% of 76). Scabies attacks animals in the nose, mouth and ears. Scabies also causes weight loss, hair loss, irritation, anemia and even death. Scabies treatment at the research location is by cleaning the scars caused by scabies, applying an ointment containing 5% permethrin, and giving anti-histamine and anti-parasitic as well as providing supportive therapy in the form of grooming using shampoo containing anti-ectoparasites. Pet owners are expected to follow the advice given by animal hospital staff who have provided knowledge in terms of controlling and preventing Scabies.

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INTRODUCTION

Cats and rabbits are animals that are widely used as pets by the people of Indonesia, especially Surabaya. Cats and rabbits are favored by the public because they are easy to care for and cute. However, cats and rabbits are susceptible to disease. A parasitic skin disease that often affects cats is scabies or commonly called mange, caused by mites *Notoedres cati* and *Sarcoptes scabiei*. These mites are very small and can only be seen with a microscope or microscopic.

These mites can easily be transmitted from animal to animal, animal to human, and vice versa (Zoonosis). Scabies is easily spread both directly and indirectly, it can also spread quickly in an animal

community, because the animals live together so treatment must be carried out simultaneously and thoroughly to the infected pets and the environment in the community that has Scabies (Raji *et al.*, 1997), because it will be easily re-infected if treatment is carried out individually.

More than 50 different animal species have been reported to be infected with *S. scabiei* (Moroni *et al.*, 2022). The majority of scabies cases in Indonesia occur in farm animals (cattle, pigs, goats, and rabbits) and pets (dogs and cats). In fact, scabies was found in 44% of Malang residents (Prasetyo *et al.*, 2019). 57% of cats at Scotty Pet Mataram clinic were infected with scabies with *Notoedres cati* mites. Scabies infection covers the head, face, ears,



and feet (Susanto *et al.*, 2021). Clinical symptoms of *S. scabiei* include itching, the discovery of many dandruff on the skin surface and fur loss. The disease is transmitted relatively quickly through direct contact from one individual rabbit that has been infested with *S. scabiei* to another individual rabbit (Susanto *et al.*, 2020).

Animal health needs to be considered, because *S. scabiei* can have a very bad impact. *Sarcoptes scabiei* can also cause losses in the form of weight loss, fur loss, decreased production, irritation, anemia, and death. According to the Ministry of Agriculture, in conditions of lack of feed, dry season, and dirty cage environment, the prevalence of *Sarcoptes scabiei* can reach 4-11%.

Based on the explanation above, this study needs to be performed to provide information about the prevalence of scabies in cats and rabbits on Animal Hospital of East Java Livestock Service from January to December 2021.

MATERIALS AND METHODS

This research was conducted at the Animal Hospital of the East Java Provincial Livestock Service Office. The data taken is data on the number of clients of the Animal Hospital of the Livestock Service Office of East Java Province for the period 2021.

The data was organized by month and animals infected with scabies. Data on animals infected with scabies were then divided into two groups, namely cats and rabbits. The data obtained from the research location was then presented in descriptive form.

The percentage of prevalence obtained by formula:

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

RESULTS AND DISCUSSION

Table 1. Scabies Prevalence on Scabiosis Patient at Animal Hospital of the East Java Livestock Service Office on 2021.

Month	Clients	Scabies Cases	Prevalence (%)
January	146	3	2.05
February	127	5	3.94
March	124	8	6.45
April	93	5	5.38
May	118	9	7.63
June	123	9	7.32
July	139	2	1.44
August	102	8	7.84
September	113	7	6.19
October	76	9	11.84
November	110	7	6.36
December	81	4	4.94
Total	1352	76	5.62

Table 2. Scabies Prevalence of each Cats and Rabbits at Animal Hospital of the East Java Livestock Service Office on 2021.

Month	Scabies Cases	Cat	%	Rabbit	%
January	3	3	100	-	0
February	5	2	40	3	60
March	8	4	50	4	50
April	5	2	40	3	60
May	9	4	44.44	5	55.56
June	9	7	77.78	2	22.22
July	2	1	50	1	50
August	8	5	62.5	3	37.5
September	7	4	57.14	3	42.86
October	9	5	55.56	4	44.44
November	7	4	57.14	3	42.86
December	4	4	100	-	0%
Total	76	45	59.21	31	40.79

Table 1. shows the results of the study on the prevalence of scabies in cats and rabbits at the Animal Hospital of the East Java Provincial Animal Husbandry Service in 2021, showing a result of 5.62% with the number of scabies cases of 76 animals from 1352 clients who visited the Animal Hospital of the East Java Provincial Animal Husbandry Service. The prevalence of scabies cases in cats was 59.21% (45 animals). The prevalence of scabies cases in rabbits was 40.79% (31 animals).

The results of the study on the prevalence of scabies at the Animal Hospital of the East Java Provincial Animal Husbandry Service were lower than at the Griya Satwa Clinic, Magetan in 2020, showing a result of 9.5% with the number of cases diagnosed with scabiosis of 76 cats from a total of 797 cat patients (Cahya *et al.*, 2022). The difference in research results was due to the difference in the number of patients, 1352 animals at the Animal Hospital of the East Java Provincial Animal Husbandry Service while at the Griya Satwa Clinic, Magetan only 797 animals.

Table 2 shows the highest prevalence of scabies in October 11.84% because the number of patients who came to the research location was only 76 clients, but the number of patients infected with scabies was 9 clients. The lowest prevalence occurred in July (1.44%), only 2 patients were infected with scabies from a total of 139 clients who visited in July. The low prevalence in July was because in that month the Surabaya area experienced the dry season, so the humidity was not too high. High humidity can affect the quality of the cage. Cages with high humidity are very much preferred by *Sarcoptes scabiei*.



Figure 1. One of the Cat Client on Animal Hospital, scabies infect most of the clients head



Figure 4. Scabies infection on rabbit's ear



Figure 2. Scabies infection on one of the hospital client



Figure 3. Scabies infection on rabbit's face

Scabies patients who come to the hospital have symptoms of thin body, eye irritation, have sores on the mouth, nose, ears, eye circles and legs. These symptoms are in accordance with the statement of [Palgunadi et al \(2021\)](#) which states that the clinical symptoms that appear in the first case of Scabies are that the animal will feel uncomfortable with the itching that occurs so that it can rub its body with hard objects. Red popula appears when the animal's body is scratched so that the skin hardens like dead skin. Skin exposed to scabies will thicken and harden if not treated immediately will spread throughout the body. Scabies is a zoonotic disease ([Lawrence et al., 2005](#)). Second, the cat's hair will look bald and look tangled.

Based on [Wardhana et al., \(2006\)](#) *S. scabiei* can attack the ears, skin, limbs, and corners of the mouth and cause to ensure difficulties in eating and even leads up to death, and it's possible to cause economic losses by decreasing feed conversion, and also the usage of drugs to overcome scabiosis, especially acaricides such as vitamin A, minerals, and to cope with secondary infections such as anthelmintics, antibiotics, and fungicides, meanwhile the production costs increases and ultimately lowers the gain ([Wong et al., 2015](#)). Rabbits with scabiosis have a fairly high mortality rate ranging from 15-40%, this can occur starting from birth to weaning due to the disease ([Masanto and Agus, 2011](#)). Factors that influence diseases are poor sanitation ([Lastuti et al., 2018](#)).

Animals exposed to Scabies can transmit the disease to other animals. Infected animals are immediately treated using an ointment containing 5% permethrin so that Scabies is not contagious. 5% permethrin ointment is given to animals with cleaned wounds and dry skin. The use of permethrin ointment is recommended using gloves so as not to transmit Scabies to humans who are being treated ([Febriyanti, 2020](#)). Giving this ointment is more effective than oral medication.

The next treatment is to give ivermectin. Ivermectin is an antibiotic from the avermectin group. This drug functions in the treatment of human

and animal *Sarcoptes* mites (Oakley, 2013). Animals that are being treated should be kept away from other animals so that they are not reinfected. Animals that have been treated should be given additional therapy in the form of grooming using shampoo containing anti-ectoparasites.

CONCLUSION

The prevalence of scabies in cats and rabbits at the research location was 5.62% or 76 positives from 1352 clients who visited. Forty five of them were cats (59.21% of 76) and 31 were rabbits (40.79% of 76). Scabies attacks animals in the nose, mouth and ears. Scabies also causes weight loss, hair loss, irritation, anemia and even death. Treatment of scabies at the research location was by cleaning scars caused by scabies, applying an ointment containing 5% permethrin, and giving anti-histamine and anti-parasitic as well as providing supportive therapy in the form of grooming using shampoo containing anti-ectoparasites.

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