

Retrospective Study of Feline Panleukopenia Virus in Jakarta

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INTRODUCTION

Feline Panleukopenia Virus (FPV) is caused by feline parvovirus, a single stranded DNA virus. This virus is a fatal and highly contagious in cats. Control of this disease is complicated by environmental resistance, the shedding of high viral loads and interspecies transmission. Cats all of ages may be affected by FPV but kittens are most susceptible. Signs of disease include diarrhea, lymphopenia, neutropenia, followed by thrombocytopenia and anemia, cerebellar ataxia (in kittens only), abortion and immunosuppression (transient in adult cats) (Truyen *et. al* 2009). The severity of clinical sign depends on the immune status of the animal and the present of other infections (Rodriguez and Guererro 2017).

In Jakarta, the prevalence rate of this viral infection believed still high, but there were only few studies has been reported. The aim of this study were to provide the retrospective data of prevalence rate and survival rate concerning ages and concurrent disease of cats infected by FPV in Veterinary Clinic Drh. Cucu K. Sajuthi and Associate, Jakarta, Indonesia.

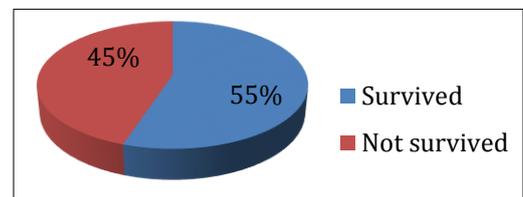
MATERIALS AND METHODS

In 2017, 236 cats were diagnosed with panleukopenia in Veterinary Clinic Drh. Cucu K. Sajuthi and Associate, Jakarta, Indonesia. Diagnosis of FPV was established by antigen ELISA of saliva and feces. Medical records of each cat were evaluated retrospectively.

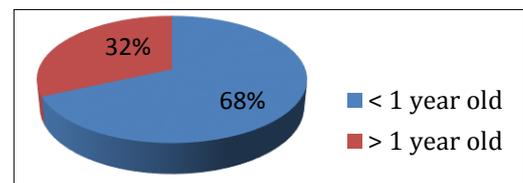
RESULT AND DISCUSSION

This study showed that 55% (130/236) of the cats diagnosed with FPV were survived from the disease and other 45% of the cats were not survived (Picture 1). There were 66% (156/236) males and 34% (80/236) females. Most cats 68% (161/236) were below 1 year of age, 32% (75/236) of cats were above 1 year of age (Picture 2). All of the cats diagnosed with FPV, there were 25% (60/236) has concurrent diseases. Sixty seven percent (40/60) of the cats with concurrent diseases were survived and the other 33% (20/60)

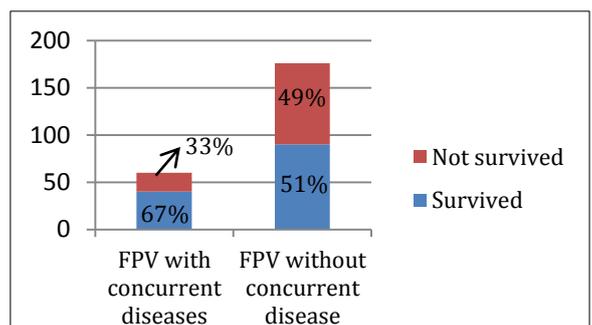
were not survived (Picture 3). Of all the cats without concurrent diseases, there were 51% (90/176) survived from FPV and the other 49% (86/176) were not survived.



Picture 1. Survival rate of FPV cases



Picture 2. Age affected by FPV



Picture 3. Survival rate of FPV cats with and without concurrent diseases

A study on 2015 in the same clinic had been reported that 97 cats were diagnosed with FPV (Kusumawardhani *et. al* 2015). This study showed that prevalence rate of this disease was increasing for three years since 2015. A study from University of Munich reported that kittens are more susceptible to FPV without being affected to the survival rate (Kruse *et. al* 2010). Based on this study, kittens had higher prevalence rate than

adult cats. Additionally, 25% of the cats have concurrent diseases associated to FPV infection. These concurrent diseases include cat flu, suspected wet type of Feline Infectious Peritonitis (FIP), suspected Feline Systemic Calici Virus (FSCV), Feline Immunodeficiency Virus (FIV), Peripheral Vestibular Disease, Feline Lower Urinary Tract Disease (FLUTD), etc. The cats with concurrent diseases showed higher survival rate than cats without concurrent disease. This result contradicts to the idea that the severity of the disease depends on the present of other disease (Rodriguez and Guererro 2017).

CONCLUSION

In conclusion, the prevalence rate of FPV infection was increasing since 2015. High number of FPV infection incidence rate indicated that the public awareness on the importance of vaccination is still low. Furthermore, based on data, the survival rate of cats infected by FPV with concurrent disease is higher than cats infected by FPV only. Therefore, there are no correlation between the present of concurrent disease and the mortality rate in the FPV infection.

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REFERENCES

- [1] Truyen U, Addie D, Egberink H, *et. al.* 2009. Feline Panleukopenia ABCD Guidelines on Prevention and Management. *Journal of Feline Medicine Surgery*. 11: 538-546.
- [2] Rodriguez VA, Guererro JV. 2007. *Practical Guide: Infectious Diseases in Cats*. Zaragoza Spain: Grupo Asis Biomedia.
- [3] Kusumawardhani SW, Haryani CA, Sari R, *et. al.* 2015. Case Series of Feline Panleukopenia Virus in Jakarta. *Proceeding: 6th FASAVA Congress Taipei Taiwan*.
- [4] Kruse BD, Unterer S, Horlacher K, *et. al.* 2010. Prognostic Factors in Cats with Feline Panleukopenia. *J Vet Intern Med*. 24:1271-1276