

## ACUTE PANLEUKOPENIA IN DOMESTIC CATS: CLINICAL, HEMATOLOGICAL AND BIOCHEMICAL STUDIES

H.N. AL-AUTAISH; TAMADHIR A.AL-HAMED AND ALSAAD K.M

University of Basrah, College of Veterinary Medicine, Department of Internal and Preventive Medicine

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### ABSTRACT

Feline panleukopenia in Basrah, Iraq was suspected and diagnosed in (68) non-vaccinated domestic cats when animals showed signs of the disease. Fifteen (15) normal healthy domestic cats were considered as the control. The disease was diagnosed primarily via the Rapid test kit (Nasal swab test). Although this test is certain and approved for detecting the infection, it was further confirmed using the ELISA test. The results indicated that all suspected cats (68) were positive (100%) for both tests. Diseased cats showed loss of appetite and depression, vomiting, diarrhea mixed with mucus and/or blood, different degrees of dehydration, congested mucus membranes, weakness, and emaciation. Moreover, the animal mouth became severely congested with few erosive lesions. Hematological changes indicate significantly lower values of total platelet count and significant leukocytopenia with significant lymphocytopenia and monocytopenia in diseased cats than in controls. Moreover, hypoproteinemia with a significant increase of AST, BUN, and ALP, were noticed in diseased cats compared with normal healthy control. It was concluded that Feline panleukopenia in Basrah, Iraq needs more attention, and control measures should be applied and approved.

**Key words:** Panleukopenia, Diagnosis, Basrah, Iraq

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### INTRODUCTION

Cats can be infected with various viral diseases. One of which is Feline panleukopenia (PLF) which is considered a serious progressive contagious viral disease of domestic cats caused by a single important parvovirus of the genus *Protoparvo-virus* (Alleice, 2014; Tuzio, 2021). The diseased cats show signs of hemorrhagic enteritis with vomiting, diarrhea with dysentery which mostly ended

with dehydration. Moreover, diseased cats also show eye problems in the form of conjunctivitis, corneal opacity, and possible blindness as well as mouth lesions. Furthermore, infected queens might exhibit infertility or abortion either of dead or mummified fetuses, whereas some kittens may be born with a nervous form (Sykes, 2020). The disease can affect all cat breeds and mostly ends with shock and death (Pandey, 2022).

It was shown that Feline panleukopenia can infect different body tissues. According to the duration of the disease, it has four clinically different forms appears as, peracute, acute, sub-acute as well as subclinical form (Tuzio, 2021).

The causative virus belongs to the family *Parvoviridae*, which belongs to linear

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*Corresponding author:* Alsaad K.M

*E-mail address:* [kamalsad58@yahoo.com](mailto:kamalsad58@yahoo.com)

*Present address:* University of Basrah, College of Veterinary Medicine, Department of Internal and Preventive Medicine