Oral Presentation (WAAC-4)

Series of Medical Examination as an Initial Phase of Rehabilitation Program in Lutung Jawa Conservation

Nurina Titisari [1*], Ahmad Fauzi[1], Aldila Noviatri[1], Dian Vidiastuti[1], Ida Masnur[2], Iwan Kurniawan[2]

[1]Faculty of Veterinary Medicine, Brawijaya University Haryono st 169 Malang 65145, Indonesia
[2]Animal Rehabilitation Center Javan Langur Center, Cangar, Batu
[*]Corresponding author's e-mail: nurinatitisari@gmail.com

Keywords: Lutung Jawa, Rehabilitation, Medical examination

INTRODUCTION

Javan Langur Center (JLC) is a rehabilitation center that located in coban talun, Batu, East Java. It is a part of the Javan Primate Project. The main activity is treating, training behavioral and also habituation and forest classes (soft release) by placing the animal in habituation cage at certain period of time (1). The habituation cage consists of 3 cages namely treatment, quarantine and socialization. But before sending the animal to the cage, it must be free of disease before grouped with other Lutung Jawa. For this reason, a series of medical examination process is conducted. Healthy animals will be sent to habituation cages for intensive training and adaptation in the forest. While the sick animals will undergo the process of therapy and treatment at the treatment cage. This medical examination is an important initial step to determine the next rehabilitation action so it is necessary to perform the procedure appropriately.

The purpose of this study was understanding the series of medical examination activities conducted at the JLC rehabilitation center and also aware of the Lutung Jawa physiology status in the time medical examination was held.

MATERIALS AND METHODS

Ten Lutung Jawa was from the quarantine cage and the socialization cage. The study was conducted from March to July 2017 at Javan Langur Center (JLC), Coban Talun, Kota Batu, Indonesia. Materials and tools used are clamp cage, syringes, alcohol, stethoscope, thermometer, while for anesthesia using ketamine, medetomidin, atipamazole, after the animal start sedated then we measure weighed. During anesthesia, the heart rate, respiration rate, and body temperature are measured every 10 minutes. Anesthesia period approximately 30 minutes, later we injected atipamazole as an antidote.

RESULT AND DISCUSSION

Medical examination activities was adopting to The Aspinall Foundation General Medical Checkup Prosedure, which is physical examination, laboratory examination, faecal examination, tuberculosis test and microchip tagging (2). To facilitate the process of medical examination is then performed anesthesia on animals so we can avoid injury to both animal and veterinarian.

The day before the medical examination was performed, lutung Jawa was moved to an individual cage and fasted for 12 hours. The next morning the animals are moved to the clamp cage to get intramuscular injection using 5 mg / kg BW Ketamine HCL 10% and 50 µg / kg BB medetomidine. Then the animal is weighed before being transferred to the examination room. During the anesthetic, physiological status measurements include heart rate (HR), respiratory rate (RR) and temperature rate (TR) every 10 minutes.

The series of medical examinations in Javan Langur Ceter are:

1. Physical examination including palpation of extremity, palpation of thorax and abdomen, palpation of lymphogland, and inspection of hair and skin, eyes, oral cavity, auricular, genital organ
2. Morphometric measurements by looking at the arrangement of the teeth and measuring the body length and extremities length for abnormalities as well as estimating the age of the animal
3. Blood collection for complete hematology test, clinical tests such as renal and liver function tests and serological tests for hepatitis A, hepatitis B, hepatitis C and *Simian immunodeficiency viruses* (SIVs), *Simian retrovirus* (SRv) and *Simian virus leukemia cell T* (STLVs)
4. Stool examination for luminal parasite and also bacteria such as *Salmonella sp*, *Shigella sp*. and *Camphylobacter sp.*
5. Intradermal tuberculosis test using Mammalian Old Tubercullin (MOT) solution observed every 24, 48 and 72 hours post injection in the left eyelid
6. Tagging uses a subcutan implanted microchip transponder.

At the end of the medical examination procedure, we placed the animal to the recovery

cage and gave intramuscular injection of atipamezole doses of 0.25 mg / kg. Atipemazoel is a medicomidine reversal agent. In this study the average of physiological status was HR 83-127 bpm, RR 33-100 times per minute, TR 36.9-37.8 C. According to research (3) the decrease in temperature, HR and RR during anesthetized animals was normal. Whereas HR was increasing likely due to the effect of medetomidine which according to research on rhesus monkeys could increase respiratory rate (4).

CONCLUSION

In this research, it can be concluded that the medical examination start from anaesthetic, body weighing, physical examination, morphometric, laboratory examination including complete hematology test, blood chemistry test, serological test, faecal examination, tuberculin test and finally microchip tagging. During medical examination activities all animal in a state of normal physiological status.

.

ACKNOWLEDGMENTS (optional)

This research was funded by Research grant of Ministery of Research, Technology and Higher Education by DPPSPP funding 2017

REFERENCES

[1] Kurniawan, I. 2012. *Profil Progam Rehabilitasi Lutung Jawa*. Malang: JLC Pres
[2] Javan Langur Center. 2014. Penanganan Satwa Baru Datang. Protocol Penanangan Satwa di Javan Langur Center. Batu
[3] Unwin, S. 2005. "Anaesthesia" dalam S. Wolfe-Coote (Ed.) *The Laboratory Primate*. Elsevier, (hal. 287)
[4] Capuano, SV., NW. Lerche, CR. Valverde. 1999. Cardiovascular, respiratory, thermoregulatory, sedative, and analgesic effects of intravenous administration of medetomidine in rhesus macaques (Macaca mulatta). *Lab Anim Sci,* Oct:49(5):537-44.