

**VISUAL AND TACTILE CONTACT DECREASES STRESS DURING TRANSPORTATION OF NON-HUMAN PRIMATES**

Y. Paramastri<sup>1, 2</sup>, J. Pamungkas<sup>2</sup>, S.S. Fard<sup>1</sup>, A. Klockars<sup>1</sup>, J. Hau<sup>3</sup>, H-E. Carlsson<sup>1, 3</sup>

<sup>1</sup>*Uppsala University, Division of Comparative Medicine, Uppsala, Sweden*, <sup>2</sup>*Primate Research Center, Bogor Agricultural University, Bogor, Indonesia*, <sup>3</sup>*University of Copenhagen, Department of Experimental Medicine, Copenhagen, Denmark*

*Presenter's Email:* hanserikcarlsson@hotmail.com

Young adult pig tailed macaques (*Macaca nemestrina*) were subjected to simulated long distance transport. The animals were transported either in conventional wooden transport cages or in modified cages having a wire mesh covered opening between adjacent cages, allowing visual and limited physical contact between the animals. The transport was performed using a lorry and lasted for 10 hours plus 12 hours with a 2 hour stop in between to simulate a transit situation. Urine was collected twice daily from the individual animals. The daily cortisol excretion was determined 5 days before transport, during transport and 7 days after the transport. The daily cortisol excretion was increased during transport and 3-4 days after the transport. Animals transported in conventional cages without contact with conspecifics had higher excretion of cortisol than animals with visual and tactile contact with their neighbors.

The reduction in urinary cortisol excretion in the animals having visual and limited physical contact with conspecifics during transport suggests that transport stress in non-human primates could be reduced by a simple modification of conventional transport cages.

**Keywords:** animal welfare, stress, transportation, cortisol