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international seminar

STRATEGY TO MANAGE BIO-ECO-HEALTH SYSTEM FOR STABILIZING ANIMAL HEALTH & PRODUCTIVITY TO SUPPORT PUBLIC HEALTH

Surabaya-Indonesia, 19-20 June 2012
JW Marriott Hotel Surabaya

EDITORS:
Michael P. Ward (Australia)
Faouzi Kechrid (Africa)
Montip Gettayacamin (Thailand)
Fedik Abdul Rantam (Indonesia)
Suzanita Utama (Indonesia)

FACULTY OF VETERINARY MEDICINE - UNIVERSITAS AIRLANGGA
I-MHERE SUB-COMPONENT B.2.C PERFORMANCE BASED CONTRACT

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International Seminar

STRATEGY TO MANAGE BIO-ECO-HEALTH SYSTEM FOR STABILIZING ANIMAL HEALTH AND PRODUCTIVITY TO SUPPORT PUBLIC HEALTH

19-20 June 2012
JW Marriott Hotel, Surabaya - Indonesia

Dean of the Faculty of Veterinary Medicine
Universitas Airlangga,

Prof. Hj. Romziah Sidik, DVM., Ph.D.

INDONESIA-Managing Higher Education for Relevance and Efficiency (I-MHERE) Project - Sub Component B.2.c Performance Based Contract

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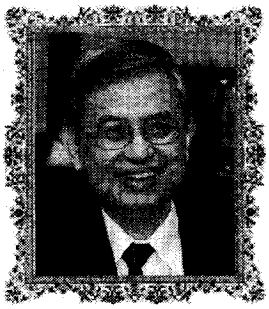

International Seminar
STRATEGY TO MANAGE BIO-ECO-HEALTH SYSTEM FOR STABILIZING THE ANIMAL HEALTH AND PRODUCTIVITY TO SUPPORT PUBLIC HEALTH

Assalamu'alaikum warahmatullahi wabarakatuh

Praised be to Allah SWT for His love and compassion that today we all gather for an important and interesting international seminar on healthy animal management system.

As we all aware, up to the present time, the world is still struggling to overcome various zoonotic diseases that have been threatening human being all over the world for centuries. Through the development of modern information and technology, we also know that those diseases weaken and decrease human quality of life sooner or later.

Therefore, concern over the problem is needed, especially in the region where people live below poverty line. As nothing can be expected from a nation with low quality of human life, it is about time for us to work hand-in hand to eradicate and prevent the outbreak of all kinds of diseases. Also, every human being is in need of good quality of domestic animals which provide plenty of protein for healthy people.

Time has come for all parties, including institutions of science to recognize the essential link between human, domestic animals and wildlife health, and the threat disease poses to people, their food supplies and economies, the biodiversity essential to maintaining the healthy environments and functioning the ecosystems.

I belief and hope that today's seminar will be able to strengthen our collaborations and networking, as an important step in reaching a safe and healthy life.

To all participants, I would like to thank you for making this seminar a success and the organizing committee for a wonderful work.

Thank you very much.

Wassalamu'alaikum warahmatullahi wabarakatuh.

MESSAGES

PROF. HJ. ROMZIAH SIDIK, PH.D., DVM.
Dean of the Faculty of Veterinary Medicine
Universitas Airlangga, Surabaya - Indonesia

Assalamu'alaikum warahmatullahi wabarakatuh

Dear Sir/Madam

On behalf of Organizing Committee the International Seminar entitled "STRATEGY TO MANAGE BIO-ECO-HEALTH SYSTEM FOR STABILIZING ANIMAL HEALTH AND PRODUCTIVITY TO SUPPORT PUBLIC HEALTH", I would like to say thank you to the honorable: Rector Airlangga University, The Chairman of Academic Senate-Airlangga University, East Java Governor, Director General Animal Health and Husbandry-Indonesia, Chairman Bank Rakyat Malaysia, President of World Veterinary Association, President of Indonesian Veterinary School Association, President of Indonesian Veterinary Medicine School Association, Chairman of Animal Husbandry- East Java Province and Surabaya City. And also to all our special guest: The Dean VetAgro Sup Nationale Veterinary School of Lyon from France, The Chairman of Veterinary Public Health and Food Safety The University of Sydney Australia, Former Dean School of Animal and Veterinary Sciences – Faculty of Sciences The University of Adelaide Australia, Representatives Envoy School of Veterinary and Biomedical Sciences Murdoch University Australia, Former Dean Institute of Veterinary – Animal and Biomedical Science Colleges of Sciences Massey University, Regional Director for Southeast Asia, AAALAC International, Chairman of Animal BSL – 3 Airlangga University, and all best colleague the Deans of Veterinary Schools in Indonesia (Institute Pertanian Bogor, Gajah Mada University, Universitas Airlangga, Udayana University, Syahkuala University, Brawijaya University, HasanudinUniversity. University Nusa Cendana, University Wijayakusuma and University of Nusa Tenggara Barat), also the Deans comes from the other Faculty of Universitas Airlangga. I also would like to say thank you to the partnership Institutions and Industries, and I proudly to all the academic staffs and students and guest participants.

Welcome to the event in Surabaya, the city which located in East Java province. As one of Indonesia's leading prefectural capital, Surabaya is keenly aware of the need to promote into a cosmopolitan city. East Java is settled between two world class tourist destinations, Jogjakarta and Bali. East Java, a province rich of tropical sights and cultural heritage is easily fitted to your journey from Jogjakarta to Bali. As natural lovers would expect an agritourism, the smoking volcano "Mt. Bromo" and the "G-Land" as a surfer paradise are the East Java's breathtaking tourist attractions that should not be missed. East Java also have several National Park that protected bulls (Bos javanicus) and turtles (Chelonians), and the specific centre of commodities livestock, as a plan in the future will promote Timorensis deer as a potential meat animal product. For art lovers special dance, you can see the magical dance

of Reog Ponorogo. We are pleased to introduce you these tourism objects of splendorous, scenic and cultural. The best to know this spectacular East Java is to come and see yourself.

I am very great pleasure for your attended to the International Seminar that hosted by Faculty of Veterinary Medicine, Airlangga University. It because of the God bless and love to us, therefore we could arranged the peach among Veterinary School in Asia region and in the World for Strengthen and Establishment, Benchmarking and branding our Veterinary School by global link.

Alhamdulillahi robbal a'lamin, thank you so much for The God.

During these two days, the event programs include four main programs, such as plenary lectures, the scientific paper session, International Standardization Veterinary Scholl Curriculum base on OIE recommendation with possibly to arrange Twinning and Double Degree Study Program with France, New Zealand and Australia Veterinary School, and to construct Indonesian Veterinary Medicine Council supported by Indonesian Veterinary School Association and Stake Holders. We hope all of you could follow the programs by pleased, savor and it will be beneficial for us.

In this moment, I would like to say thank you to:

Chairman of Indonesia-Managing Higher Education Relevance and Efficiency (IM-HERE) Project-Sub Component B.2.c. Performance Based Contract for supporting and funding the International Seminar.

Rector of Universitas Airlangga for supporting and funding the International Seminar based on Annual Budgeting Plan 2012 of Airlangga University.
The sponsorships that supporting to the event.
All Keynote speakers and invited speakers.
All participants.
Finally, thank you very much for all the distinguish guest for your kindly and closely to all the participants, please have a nice time to enroll the event.

Thank you very much.

Wassalamu'alaikum Warahmatullahi Wabarakatuh.

MESSAGES

DR. ANWAR MA'RUF, DVM., M.KES.
Chairman

Assalamu'alaikum warahmatullahi wabarakatuh

Ladies and Gentleman

I have the honour of welcoming, delegates and speakers to Surabaya and the 2012 International Seminar.

Organised under the theme "Strategy to Manage Bio-Eco-Health System for Stabilizing the Animal Health and Productivity to Support Public Health" this program was aimed to provide a forum for all those interested in sharing and discussing common concerns and up to date research in the physical, biological, social and economical changes that it happen in the environment which generates for human health.

It is only through exchange of information that we can carefully develop the strategic and medical intervention in managing bio eco health system to increase health and reproduction animal for supporting public health. So I hope you will take advantage of the many opportunities this program provides to network with colleagues from around Indonesia and overseas.

The successful organization of this program has required the dedication and time of all committee members. Much work went into preparing the program. I am very grateful for the financial support we have received from our sponsors which are recognized in this book. It would not be possible to hold this program without their support.

I do hope that the seminar will be fruitful for all of us and please enjoy your stay in Surabaya.

Thank you very much.

Wassalamu'alaikum warahmatullahi wabarakatuh.

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SURGICAL REMOVAL OF A PROVENTRICULUS FOREIGN BODY FROM OSTRICH (*STRUTHIO CAMELUS*): CASE REPORT

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ABSTRACT

A six months old Ostrich (*Struthio camelus*) was reported to Veterinary Hospital Universitas Airlangga referred for a history of foreign body ingestion with the clinical description of cachexia, dehydration, apathy, decubitus, dry and scanty feces. Radiography and physical examination revealed foreign body within the proventriculus. Surgical removal foreign body (nail, plastics, seeds, hooks, stones, and ceramic) by proventriculotomy under general anesthesia was attempted. Two months of follow up surgery revealed no complications.

Keywords: Ostrich, proventriculus foreign body, surgical treatment

CASE DESCRIPTION

A six months old Ostrich (*Struthio camelus*), 27 kg, female was reported to Veterinary Hospital Universitas Airlangga. The owner informed that general condition of the ostrich was gradually worsening in last 10 days and water intake was decreased within a term debilitating the case to stand on foot. In clinical examination, none of any or bone fracture was found but the weight loss, dehydration, apathy, decubitus, dry and scanty feces. Abdominal palpation showed a sensitivity.

Radiographical examination: With considering the history and clinical symptoms, foreign body was found (Fig. 1) in the lateral position abdominal X-ray.

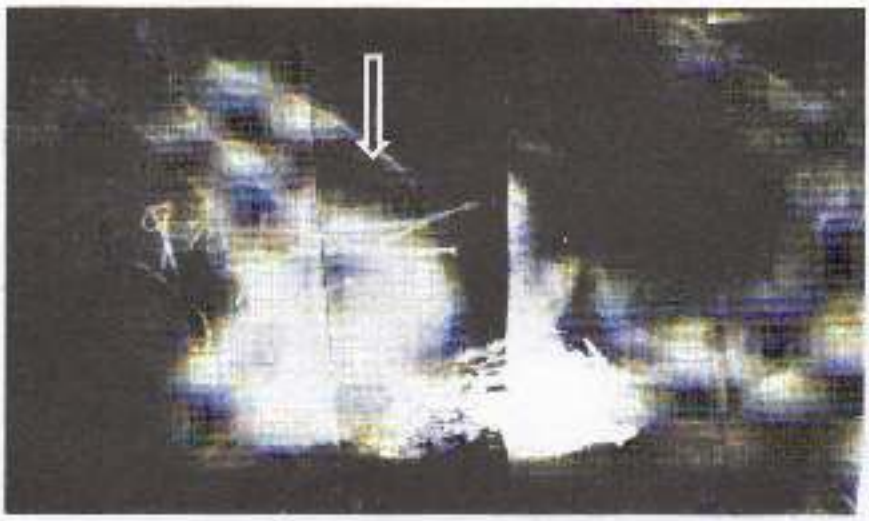

Figure 1. The abdominal position of the foreign body in the case seen on lateral X-ray (arrow)

Treatment: We therefore decided to remove the foreign body through a proventriculotomy. Xylazine HCL (1mg kg^{-1}) and Ketamine HCL (20 mg kg^{-1}) was intramuscularly administered to put the ostrich under general anesthesia for surgical treatment. Then, animal were prepared

for operation according to the technique applied by Shwaluk and Finley (1995). The ostrich was placed in right lateral recumbency on a pad. A band of quilled feathers, left of the ventral midline, was plucked from the caudal end of the sternum to a point 5cm caudal to the thigh. This area was aseptically prepared and routinely draped. A left paramedian approach was used to exposed the proventriculus. Incision was made 3 cm through the skin and rectus abdominis muscle over the impacted proventriculus. The proventriculus was opened with a stab incision that was enlarge to 3 cm. Foreign material consisting of pieces of chopped alfafa, nail, screw, plastics, seeds, hooks, stones, and ceramic (Fig. 2 and Fig. 3) were removed from the proventriculus and ventriculus using hemostats. The opening from the proventriculus into the ventriculus is large in ostrich, thus foreign material in the ventriculus can be seen and removed through the proventriculus. The proventriculus and ventriculus were lavaged with sterile saline and closed with a simple continuous suture pattern, followed by a simple continuous pattern on rectus abdominis muscle, and the skin was closed using a simple interrupted pattern. All suturing was done using 2-0 Chromic Catgut. Fluid therapy, vicillin (ampicillin) t.i.d for 5 days in a dosage 20 mg kg^{-1} and B_1 and B_6 vitamin combination I.M. were given in the postoperative period. Two months of follow up surgery revealed no complications.

Figure 2. Foreign material consisting of pieces chopped alfafa

Figure 3. Foreign material nail, screw, plastics, seeds, hooks, stones, and ceramic

DISCUSSION

The main problem in Ostrich (*Struthio camelus*) are obstruction and foreign materials in the gastrointestinal system, nutritional and behavioral disorders, respiratory system problems, foot problems, fracture and dislocations (Alkan *et al*., 2001). Gastric impaction in ostrich occurs mainly by access to foreign materials which should not be within the reach of animals and/or as a result of behavioral problems which reflect errors in the flock management, including stressful conditions, animal translocation, poor sources or low fiber nutrition, sudden changes in feeding schedule and/or

composition, changes in bedding or introduction of it for adult animals, lack of space for handling, and high density of animals (Yuksek *et al*., 2002).

Ostriches are ground eating animals and habitual peckers (Samson, 1992). In the wild, young chicks will roam up to 25 miles in 1 days and will pick up very few objects they do not digest (Drew *et al*, 1991). In captivity, ostriches are not allowed such freedom of space and did not have opportunity to roam. This condition causing stress and boredom, this young chick pecked at bedding and become impacted. Bedding is used by most ostrich procedures. It should be introduced gradually, starting on day 1 after hatching, to allow chicks adaptation (Steward, 1990). Many different types can be used, but it is important that the type of bedding is not switched at a later date, as this may stress the birds and cause ingestion of the new heding, leading to impaction. The pens or rooms must be free from fureign objects, suh as rocks or nails, to avoid ingestion by the ostrich. Young ostrich must be thaught or encouteraged to eat. Feed and water must be readily available at all times. A bird that a few days older and knows how to eat properly may be placed with younger birds as an example to them. Stressor, such as movement of birds to a new enclosure, stale air, noise, lack of room to exercise, and poor feed, must he avoided as they are thought to contribute to the incidendence of impaction (Doornenbal, 1992).

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