

**Avian Pox Outbreak in pre-releasing
stage of six Common buzzards
(Buteo buteo)
- Case Report -**



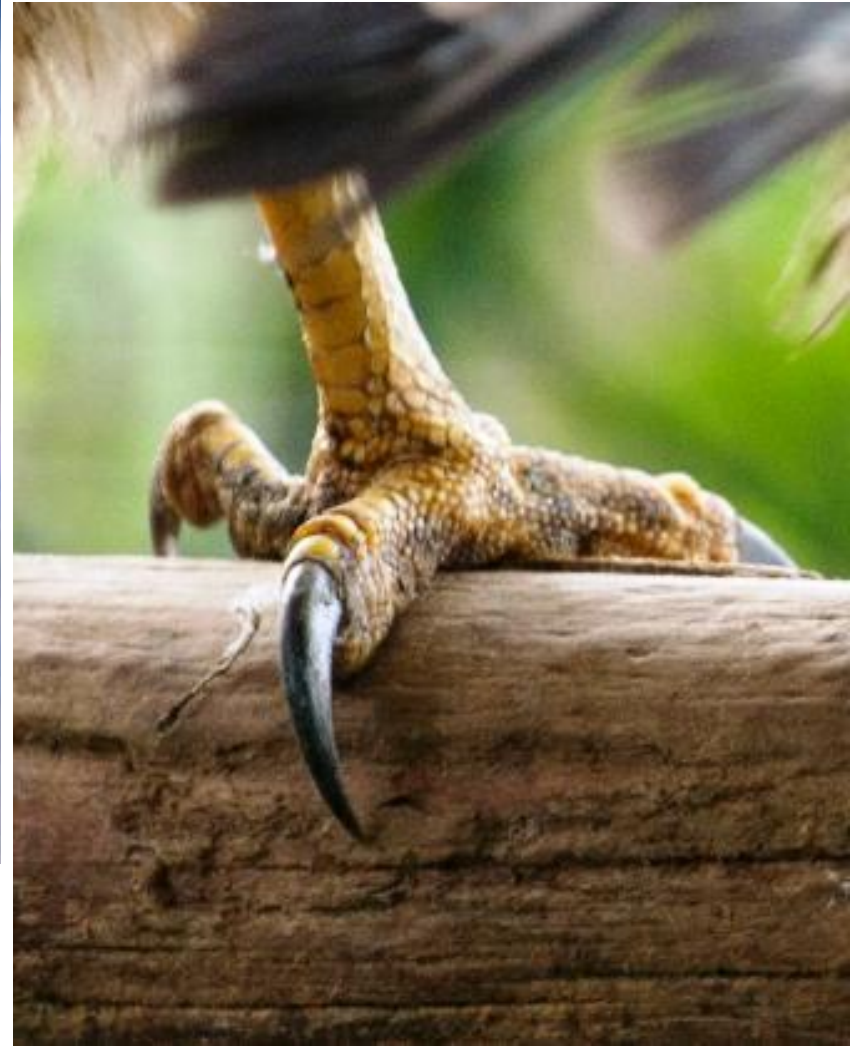
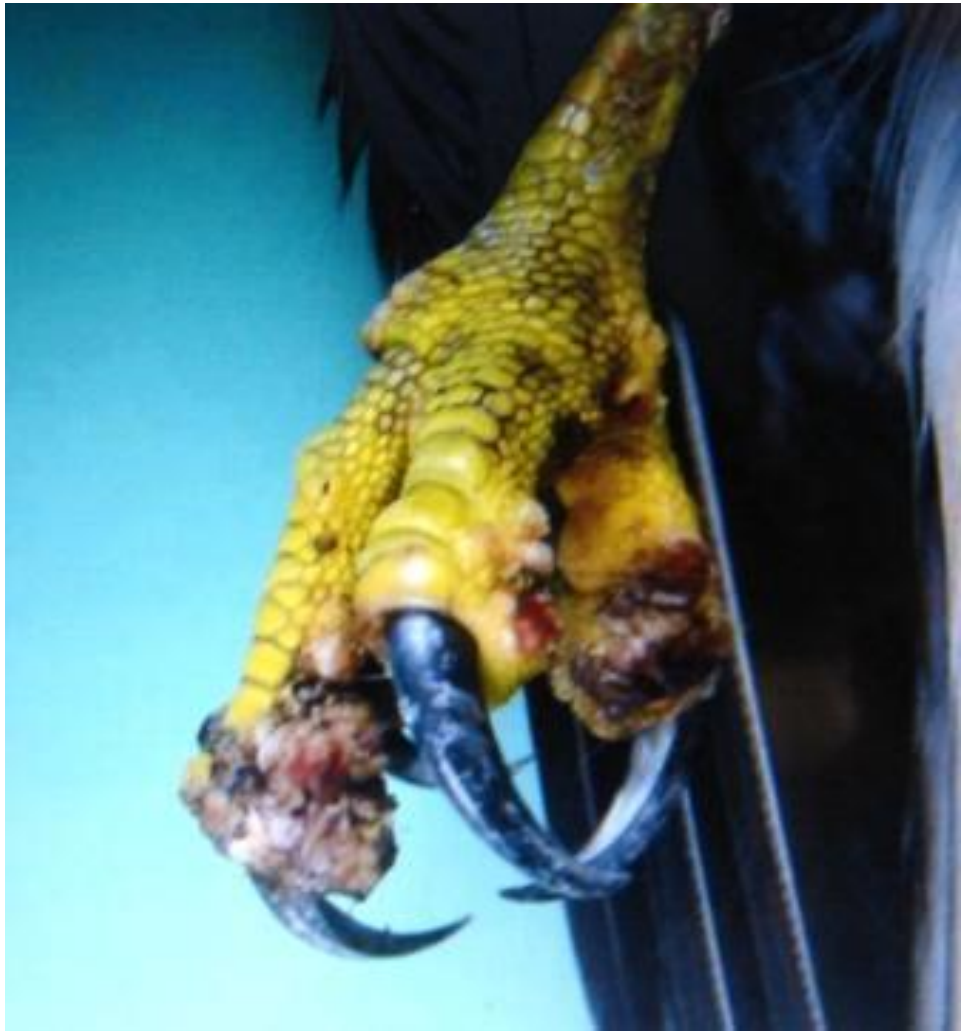
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Functions of Wildlife Rehabilitation Centres

- Rehabilitation and releasing of wild animals injured by human-related actions
- Important source of scientific and medical data
- Sentinel function: detection and surveillance of diseases in wild animals
- Multi and inter-disciplinary training
- Awareness

Case History

- January – June 2005 intake of 6 common buzzards from different locations within North Italy
- Cause of admission: traumas
- Housing: outdoor rehabilitation-cage
- Pre-release health screening and ringing:
 - multiple wart-like lesions on the toes



1° Suspect: Poxvirus – dry form

Multiple Proliferative lesions on the head
face and feet

Possible evolution: necrosis and secondary
infections

DD: trauma and infection, Knemidokoptes
spp., neoplasm (?)

Diagnosis: viral culture or histopathology

Brief facts about Avian Pox

- Worldwide
- Morbidity and mortality
- Transmission: by direct contact with open wounds or biting insects
- Species-specificity but cross-species infections may occur
- First countermeasure to take: Isolation

First Steps

- Precautionary measures
- Notifying Stakeholder
- Medical management

Precautionary measures

Aim: rapid containment and subsequent elimination of the pathogen within a restricted area

- Release in stand by
- Isolation (risk assessment and feasibility)
- Selected team
- Protective equipment
- Safe waste handling

Stakeholders

Team:

Restricted area and protocols

Manager and Director:

Releasing in stand by till results

University of Milan, Italy (Dipartimento di Patologia Animale,
Igiene e sanità Pubblica Veterinaria) :

Impression smears, necropsy

Necropsy findings

- Diffuse mycotic air sacculitis
- Proliferative skin lesions on both feet

Suspect of pox infection promptly forwarded together further investigation for the AVP strain identification

Medical management

- Treatment:
 - No specific antiviral treatment
 - Lesions topically debrided and treated with antimicrobial for secondary infections
 - Systemic antibiotics, fluid therapy, vit.A may aid recovery

Disinfection with lipids solvents and exclusion of potential insect vectors will help to stop further spread of the infection.

Decision making process

- Risk assessment
 - New strain or cross contamination?
 - Modality of transmission
 - Wild population
- Logistic
 - Lack of space
- Medical implications:
 - Welfare of the 5 buzzards (different stages of bumblefoot)

Final decision: euthanasia

Follow up

- Necropsy and virus isolation of the euthanized buzzards
- Cleaning and disinfection of the rehabilitation cage
- Empty cage during Winter

Virus identification:

Homology of the isolated poxvirus with avian poxviruses belonging to subclade A2

(typical of pigeon, turkeys and ostriches)

Infectious history

- Aspects to be considered:
 - The epornitic involved six birds coming from different areas and admitted to the centre in different months
 - The cutaneous lesions became manifest in late summer, the season with the highest incidence of avian pox in Italy
 - The buzzards had any contact with turkeys, pigeons, and ostriches

Alternative ways of introduction of the pox infection into the centre

- Through mosquitos
- Buzzard with an unapparent infection when it was admitted

Conclusions

Prevention and contingency plan

Knowledge gaps about avianpox epornitics



Rules of the Wildlife Veterinarian:
Not just injecting and stitching!

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