

2017-15-2

Glabrous Skin of Flamingo

Sandi Htein Linn

Contributor

- University of Veterinary Medicine
Hannover, Germany

Signalment

- 4 week-old Chilean Flamingo, Avian

History

- Female flamingo from the zoo showed a multinodular ulcerated, wart-like proliferation at the skin of tibiotarsal joint.

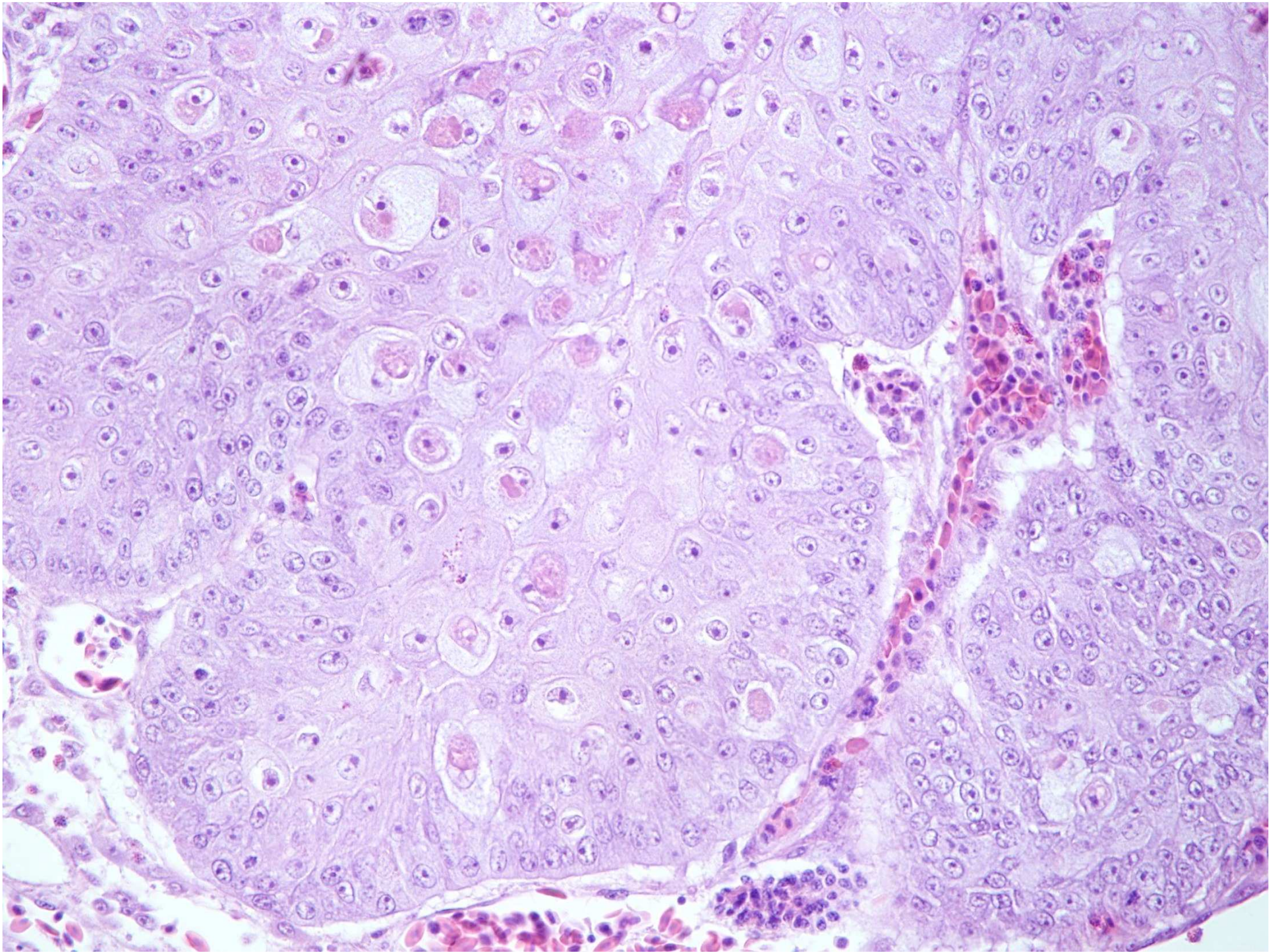
Gross Pathology

- Infected tissue had ulcerated, multi-lobulated and tan color

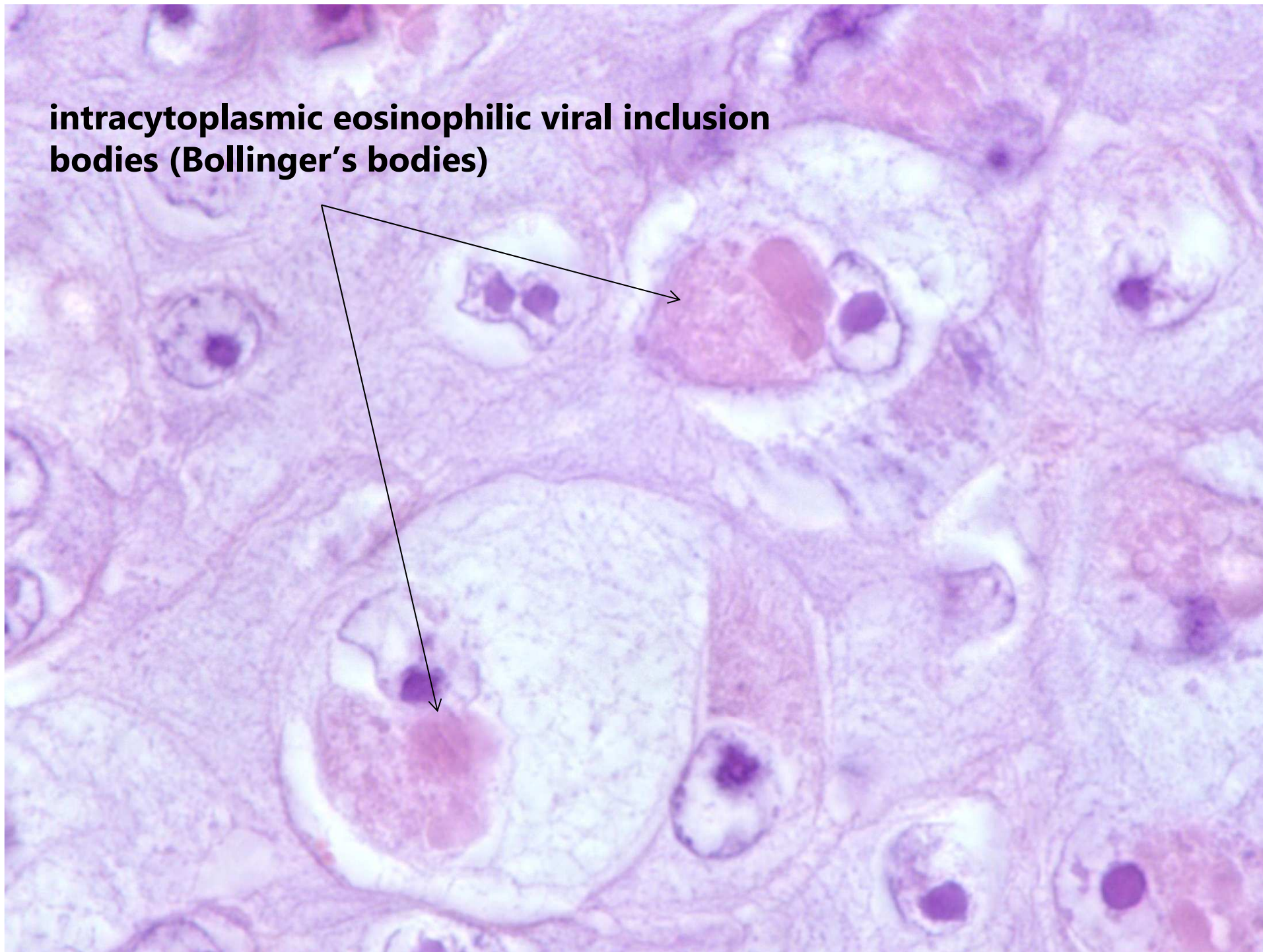
Laboratory results

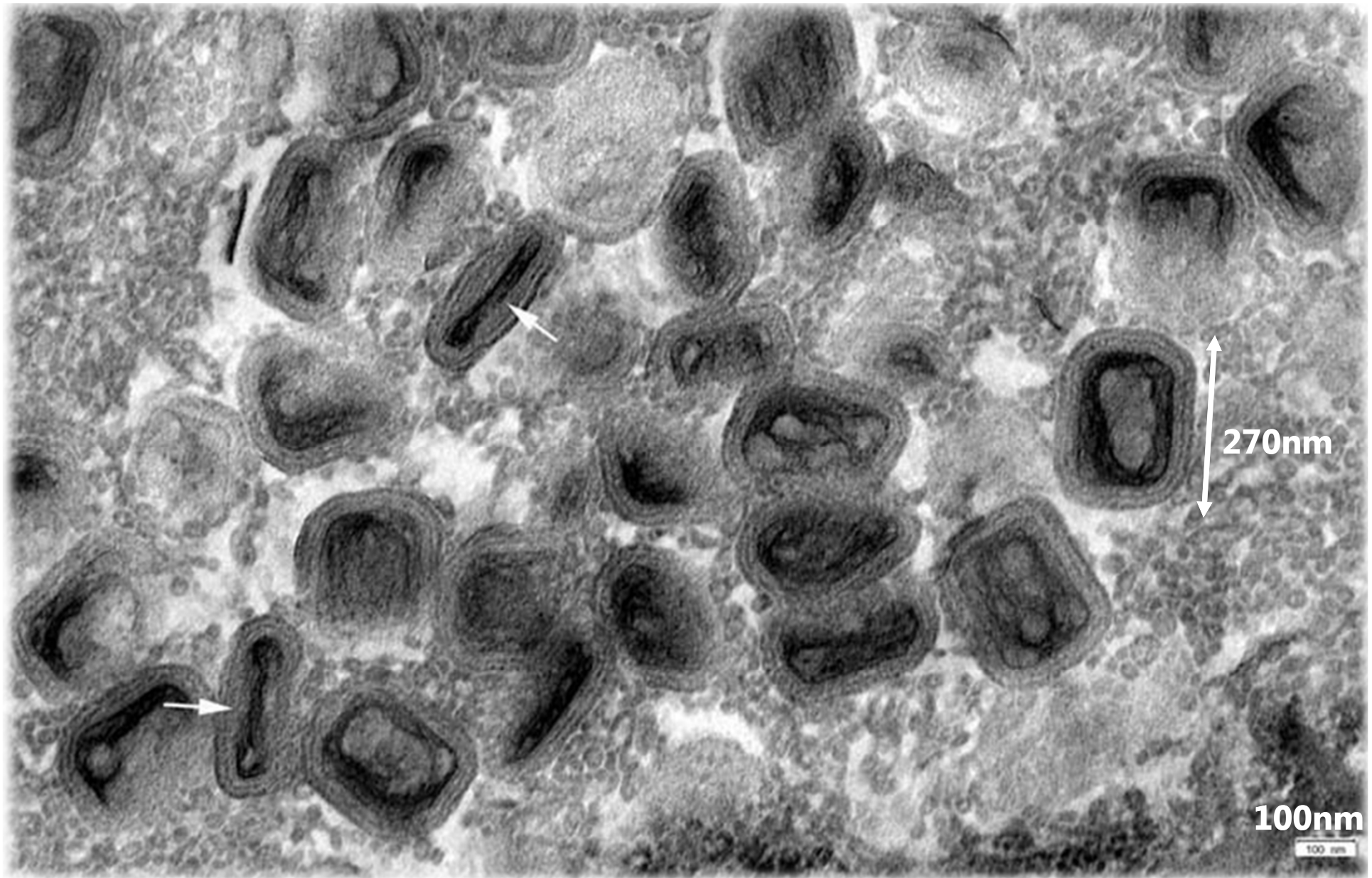
- Histopathology test
- PCR test detected avipoxviral DNA with 99.9 % similarity to canarypox strain





intracytoplasmic eosinophilic viral inclusion bodies (Bollinger's bodies)





Infective keratinocytes contain numerous biconcave brick-shaped virions

Contributor's Diagnosis

Skin; Dermatitis, erosive and ulcerative, heterophilic, acute, diffuse, severe with epidermal hyperplasia, pustule, hydropic degeneration of keratinocytes and cytoplasmic, eosinophilic inclusion bodies (Bollinger's bodies).

JPC Diagnosis

Skin; Dermatitis, necrotizing and proliferative, focally extensive, severe with ballooning degeneration and intracytoplasmic eosinophilic viral inclusion bodies (Bollinger's bodies).

Contributor's comment

- Pox virus infection is a common viral disease of Avian species (chickens, turkeys, pigeons, pigeon, sparrow quail and canaries)
- Caused by brick-shaped, enveloped double-stranded DNA of *Avipoxvirus*
- Infection was confirmed by using transmission electron microscopy
- By macroscopically, exophytic ulcerated multinodular proliferation presents on the tibiotarsal joint.
- In histologic lesions include;
 - Epidermal hyperplasia
 - Hydropic degeneration
 - Cytoplasmic eosinophilic (Bollinger's) inclusion bodies

- The disease is characterized by;
 - Dry form (cutaneous) ➤ Proliferative skin lesion (legs, eyelids, beak)
 - Wet form (diphtheric) ➤ Proliferative and fibrino-necrotic lesion in mucous membrane (tongue, pharynx and larynx)
 - Septicemic form (rarely) ➤ Ruffled plumage, cyanosis, somnolence and anorexia
- Mortality rate of diphtheric (wet form) is higher than cutaneous (dry form)
- Mortality rate of Septicemic form may cause up to 99%

Conference Comment

- In grossly, cutaneous form (dry pox) need to differentiate with mite infections and bacterial dermatitis (bumble-foot) caused by *Staphylococcus aureus*.