

# Chronic Nasal Discharge in a Blue and Gold Macaw (*Ara Ararauna*) - Case Report

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## History

On 5/1/98 a 7 year old male Blue and Gold Macaw presented with a history of chronic nasal discharge for over 6 months. There had been some clinical improvement when treated with lincomycin/spectinomycin<sup>1</sup>. The bird was housed with a clinically normal female and was reported to be eating and behaving normally. No sneezing or audible respiratory sounds had been heard.

## Clinical Examination

The bird appeared bright and alert, body weight was 960gms and plumage was judged to be dull. Nasal discharge was evident from both nares, more obvious on the left side.

## Investigations

Anesthesia was induced with Isoflurane<sup>2</sup> by mask and blood collected for a minor profile.

## Results

PCV 47, Total Protein 4.9gm/dl  
Uric acid <11,  $\mu\text{mol/dl}$ , SGOT 96 I.U.  
Film. Normal RBC's, adequate thrombocytes  
Mildly elevated WCC relative heterophila.

Both nares were flushed with warm sterile Hartmans solution and ample amounts of thick clear mucus were collected from the choana. The area inside the choana was swabbed, and all material submitted for culture/sensitivity.

Lateral and Dorso/ventral radiographs of the head were taken, which showed a slight increase in density in the left infra orbital sinus.

Injectable doxycycline<sup>3</sup> 100mg was given intramuscularly and recovery was uneventful. On day 6 post treatment both nares were still dry, and the bird went home on weekly injections of 100mg doxycycline and oral vitamin supplement<sup>4</sup>

## Results of Culture/Sensitivity

Gram +ve cocci	++
Gram -ve bacilli	+++

## Isolates

1. Non Haemolytic Strep Group D +++
2. *Klebsiella oxytoca* +++
3. Gram Negative Bacillus +++

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	1.	2.	3.		1.	2.	3.
Penicillin	R			Ticarcillin	R	R	S
Amoxycillin	S	R	R	Gentamicin	R	S	S
Erythromycin	R			Doxycycline			
Lincomycin				Cephalexin	R	S	R
Trim/Sulphonamide				Cloxacillin	R		
Tetracycline		S	S	Linco-Spectin	S	S	S
Clavulox				Piperacillin	R	R	S
Clindamycin							

Day 18 Post Initial Treatment (P.I.T.) minor discharge was again seen.

Comments: The gram negative bacillus failed to identify using conventional AP1 systems.

To attempt to increase antimicrobial activity, oral lincomycin/spectinomycin was added to the treatment regime.

Day 30 P.I.T. discharge returned, bird readmitted, blood collected for chlamydia AB test - result negative, and ½ml lincospectin/spectinomycin injected into left infra orbital sinus for the next 4 days resulting in dry nares - bird sent home with Cod Liver Oil capsules 1 daily in food.

Day 65 P.I.T. Discharge returned: It was thought that poor penetration of drug may be the cause of the relapses, so a course of daily lincomycin/spectinomycin and hyaluronidase<sup>5</sup> intra sinus injections was commenced for 4 days resulting in cessation of discharge. Dosage of injections 1/2ml Lincospectin/700 I.U. Hyalase.

Day 110 P.I.T. Discharge returned - Swab from choana for re culture/sensitivity Result:

Gram +ve Cocci Occ  
Gram-ve Bacilli Occ

ISOLATES: 1. *Enterobacter* species ++  
2. Non-haemolytic Strep Group D ++

	1.	2.		1.	2.
Penicillin		R	Ticarcillin		
Amoxycillin	S	R	Gentamycin	S	R
Erythromycin	S		Doxycycline		
Lincomycin			Cephalexin		
Trim/Sulphonamide			Cloxacillin		
Tetracycline	S	S	Linco-spectin	S	S
Clavulox			Piperacillin	S	R
Clindamycin					

### Comments

Mycoplasma culture Negative. Culture for *Haemophilus* Negative.

Fungal Cultures Negative.

Oral amoxycillin/clavulonic acid<sup>6</sup> was trialed for 10 days and resulted in dry nares.

Day 210 P.I.T. discharge returned. Bird readmitted and re radiographed- now a dense frontal

sinus was identified on the left side. Body weight now 915gms.

Isoflurane anesthesia induced and maintained, intubation and monitoring. Both frontal sinuses were trephined using a Dremmel tool and burr. Right sinus clear, empty; left sinus had mucus and bone trabeculae and tissue present. Samples secured for histopathology, bleeding was moderate, and controlled by direct pressure, skin closed by 4/0 Dexon simple interrupted sutures leaving both sinus opening uncovered. Flush both sinuses and packed with Chloromphenical eye ointment<sup>7</sup>

Recovery was uneventful.

Bird had dry nares the following day, and was sent home.

### **Histopathology Report**

#### **Microscopic Findings**

The specimen, by volume, is mainly blood clot. There are some fragments of bone and soft tissue. The soft tissue is of spindle cell type but not otherwise classifiable.

Diagnosis: Probable sarcoma.

#### **Comments:**

Histologic evidence of inflammation is not present. The specimen really is inadequate for the purpose but neoplasia is the preferred interpretation of the histologic findings.

The owner declined a more radical sinus exploration to wait and see how the bird goes.

The owner commented that the nares have remained dry until October 1998, and the bird's general condition has improved, and he is showing signs of breeding for the first time, and looks much better than at any time in the last 2 years. There has been no nasal discharge since surgery, and this represents the longest period for the last 2 years.

- 1 Lincospectin- Up John
- 2 Forthane- Abbott
- 3 Psittavet injection- Vetafarm
- 4 Soluvet- Vetafarm
- 5 Hyalase- Vetafarm
- 6 Clavulox- Pfizer
- 7 Chlorosone- Jurox