Introduction

In recent years, surgery in pet avian species has become more and more sophisticated. Development of newer gaseous anesthetics has made complicated internal work relatively routine. The purpose of this paper is to describe a few of the procedures which are now performed in a progressive pet avian practice.

Isoflurane Anesthesia

The anesthetic for routine and involved surgical procedures is a new gaseous anesthetic, isoflurane (Forane® - Ohio Chemical). We consider this product the anesthetic of choice in pet avian medicine. First used and studied in birds by Harrison, this gaseous anesthetic gives excellent surgical control. The product is now used extensively in humans because of problems with delayed hepatopathies of patients and an increased cancer rate in operating room personnel working with halothane and metofane.

Besides the safety of the gas and the ease of administration without the necessity of endotracheal intubation, the birds recover extremely fast with little or no wing flapping. The patients will often stand within seconds of cessation of the gas flow.

Other Anesthetics

Other anesthetic regimens can be used, of course, but do not have the safety and other advantages of isoflurane. Metofane induction by cone, followed by intubation and the use of halothane by an open breathing system, is one regimen. Others prefer metofane induction and metofane maintenance in a closed system. Gaseous anesthetics are usually chosen because of rapid recovery time and relative safety and control.

Injectable anesthetics are used for certain procedures but are not as easy to control as the gases. Respiratory and cardiac depression may be complication factors. The authors prefer intravenous Rompun-Ketamine (equal volumes of 100 mg/cc Ketamine and 20 mg/cc Xylazine) if an injectable must be used.

In gases other than isoflurane and with the use of injectables, wing flapping on recovery is prevented by wrapping the patient in a large towel. By the time the bird can work itself out of the towel, it usually can perch and not injure itself.

Gaseous anesthetics are preferable for birds. It is extremely reassuring to have a patient ‘walk off the table’, rather than remain comatose for a prolonged period of time following injectable anesthetics.

Pre-operative Evaluation

The clinical pathology laboratory plays an important role in the pre-operative evaluation of the avian patient. The problem of subclinical illness in caged birds and their ability to mask symptoms makes diagnosis of illness difficult.

In an elective surgery, every attempt is made to correct any abnormalities before proceeding. In a non-elective surgical procedure, the abnormalities are treated as part of the post-operative care. In a non-elective surgical procedure, the clinician is advised to be especially wary if an SGOT (SAST) rise has occurred. While not liver specific, an SGOT (SAST) rise often indicates liver disease which may portend poten-
DOMESTIC, HAND-FED BABIES

Amazons, African Greys, Cockatoos, Conures, Eclectus, Lories, Macaws, Pionus, and Others.

Our Specialty is Rose-Breasted Cockatoos.

Gail J. Worth
Hannis L. Stoddard III, DVM
2808 Oregon Court - Unit L8, Torrance, CA 90503 (213) 541-1180
Our 1985 convention will be held in the beautiful Cathedral Hotel, San Francisco (Van Ness Avenue and Geary Street), August 7th through 11th.

Some of the most celebrated speakers in the world will bring us words of wisdom on flora and fauna. Many new faces — first timers!

There will be tours of San Francisco, the city's zoo, bird tours, and a special tour of the wine country. We are working on a “special” to Hawaii, and if you have time, take the 12 day Loveboat Cruise to Alaska!

This year the drawing will consist of an automobile, a home computer, a color T.V., a pair of blue Indian ringnecks, a case of fine wine, a round trip for two to Australia via Qantas Airlines, twenty-five assorted pairs of birds and many other prizes.

The next Watchbird will carry more detailed information and all A.F.A. members will soon receive a packet in the mail. In the meantime one can contact: Jim Coffman, convention chairman, 1575 Bayshore Highway, Burlingame, CA 94010.

Make it a family vacation. San Francisco is a fantastic city of countless sites to see and things to do! Public attendance is invited and encouraged.

Surgical Procedures

Selected soft tissue surgical procedures used in pet avian practice will not be discussed. Surgical sexing, beak repair and orthopedics are not covered in this paper.

Oral Abcesses and Choanal Infections

A myriad of organisms can affect the pharyngeal area of birds. Gram negative infections, some gram positive infections, vitamin A deficiency break down of tissues, yeast infections (i.e., can-
The purpose of sinus trephination is to create an opening to instill flushing and antibiotic solutions to an otherwise inaccessible area (usually 1:10 solutions by volume, i.e., 9.5cc Lactated Ringers and .5cc Gentamycin or other antibiotic or combination). The openings are created so that they will stay patent at least a week, which has been an effective technique for us.

The surgical technique is as follows: The patient is anesthetized with metofane by ‘‘open-drop’’ method (cone) or Forane by anesthetic machine to facilitate quick recovery. Do not use injectable anesthetics due to the potential bleeding that may be encountered and potential danger of blood contamination. The surgical sites are an area about 2/5 the way between the eye and naris and dorsal to the plane of the eye. A Dremel tool is used to facilitate creating the openings, after first plucking the feathers and wiping the skin with alcohol and betadine (avoid the eyes—apply gentocin ophthalmic first). An initial incision is made over both sites, using ferric subsulfate or electrocauterity to stop skin bleeding (can be a problem). The bone is exposed and the sinuses are invaded. If profuse bleeding occurs, Gel Foam packing may be used. The openings are tested for patency after first obtaining swab specimens for potential gram stains and cultures and sensitivities. Patency is tested by injecting the usual mixture (Lactated Ringers-Gentocin) into the openings. Fluid should be evident through the choanal slit. Be careful about rapidly inducing the fluid, as the periocular tissue may swell. If this happens, absorption is rapid. The bird is allowed to recover in a dark cage. Watch carefully for postoperative bleeding and apply ferric subsulfate swabs, if necessary, to the skin and openings.

The next day, the traphination sites can be used to flush the sinuses. I will often flush the sinuses twice daily and apply an ointment afterwards, such as Gentocin Ophthalmic. The openings will seal rapidly and may require forced opening to retain patency. Once they seal, healing is rapid and usually very little scar tissue is noticeable after healing has occurred.

Air Sac Exploratory

The exploratory laparoscopy is becoming more and more useful as a diagnostic aid. In chronic respiratory disease, samples for gram stain, culture and sensitivity, or biopsy, may be taken from the air sacs directly through an abdominal incision. It has been our preference to use open drop metofane for this procedure due to its safety, as these patients are severely compromised. However, Forane appears to be the new anesthetic of choice for the procedure. This method is usually used only if conventional diagnostic workups and antibiotic therapy have failed to solve the problem, or if radiographs have outlined an obvious granuloma or internal abscess and a direct visualization is desired.

Ruptured Air Sacs

Ruptured air sacs are seen from time to time in many avian species. The etiology may be either trauma or infection. The usual treatment involves tearing the bird’s skin with a large (18 ga.) needle to allow the air to escape. Many birds will heal this way and others require repeat treatments. Of course, the bird should be given the usual workup to try to determine etiology and prophylactic antibiotics are suggested, in any case. Some small birds such as budgies or canaries may assume bizarre appearances when victimized by this condition. Most will eventually heal with time (i.e., two weeks). Some cases become chronic, producing long-term or permanent ‘‘subcutaneous emphysema.’’ In such cases, larger openings in the skin can be made and sutured open to encourage leakage of air. The air sacs may heal with time. We have not been able to successfully suture air sac tears. Harrison has described successful ligation of torn air sacs of the submammary area in young cockatiels. He allows the birds to mature, then repairs the mature air sacs with a single ligature.

Ventriculotomy (Gizzardotomy)

We have found the ventral, midline approach the most efficacious for reaching the gizzard. After a standard preparation, a midline incision is made between the pubis and extended approximately two inches. The abdominal wall is carefully opened with scissors, taking care not to traumatize intestinal loops. After the abdominal air sacs are opened, the ventriculus is gently exteriorized using Allis tissue forceps. A small incision is made in the muscular wall of the distal gizzard and spread 0.5 inch by blunt dissection. The inside of the gizzard is easily accessible. 4-0 Dexon is used in closure.

Cloaca-pexy

This surgery is used to repair chronic prolapse of the cloaca. A midline incision is made and the cloaca is outlined by having an assistant wearing a finger cot push cloaca into the incision site. From here, it is carefully sutured to the abdominal wall using 3-0 surgical wire.
and 3-0 Dexon in a crossing pattern. Care must be taken not to penetrate the cloacal wall.

**Digestive Tract Biopsies**

Biopsy techniques are becoming more and more popular. Liver biopsies are probably the most useful...
ASSOCIATED PRESS
Orange-wing wakes up immediately following surgery with Forane - very desirable.

diagnostically. A midline incision is made and a wedge of liver is removed. Bleeding is usually minimal but consideration should be given to potential problems if the liver is compromised. A prophylactic injection of vitamin K₁ (1-2 mg/kg) 12-24 hours prior to biopsy may be crucial when bleeding disorders exist. Bleeding potential can be checked by plucking a few feathers prior to biopsy.

Cloacal Polyps and Growths

Cloacal growths and polyps have been seen for years in various Psittacine species. Some feel these may be of viral origin and vaccine responsive. Surgical procedures range from simple ligation and excision, electrocautery, to cryosurgery. The method of removal depends on the extent of involvement of surrounding tissues. The authors prefer electrocautery and Harrison has had success with cryosurgery. •

FEATHER DUST FILTER SYSTEM, large 20 x 20 x 18 utility tubs with faucets, legs and clear 5/16" clear non-toxic plastic tubing. Nest bottom. treated with, welded wire, top quality seeds. Send SASE to: TOP O' TEXAS AVIARIES, 2223 Dogwood, Pampa, Texas 79065. Phone (806) 699-6106 or 696-2648.

WROUGHT IRON CAGES - U.S. made, non-toxic designer cages. Built for your bird's well-being and easy maintenance for you. Parrot size from $76. Also, Yellow napes, Yellow heads, macaws and cockatoos at sale prices. For literature write: ESP Enterprises, P.O. Box EB, Lemon Grove, CA 92045. Call (619) 463-3060.

HANDBRED BABIES. We will have the following babies available this spring. These are all domestic babies, bred here at our ranch. Blue & gold macaws, Green wing macaws, Military macaws, Scarlet macaws, Yellow napes, Congo African greys, Moluccan cockatoos, Double yellow, Umbrella cockatoos, Medium sulfur crested cockatoos, Red loreds, Senegals, lutino Ringnecks, Rose breasted cockatoos and Triton cockatoos. We are now accepting reservations on these birds. We also carry a fine selection of quarantine birds. CALL OR WRITE TODAY. THE PET RANCH, 3015 Pioneer Way, Jamul, CA 92035. Call (619) 698-5878.

BIRD MUTATION ENTHUSIASTS: grays, and yellow-headed Indian Ringneck parakeets; blue pied, and lutino Princess of Wales; yellow, and blue Pennant Rosellas; cobalt, and violet blackmask Lovebirds, and many, many more spectacular mutations are now being bred in Europe, and will be available to me this Spring 1985. Through the past five years I have visited, and bought birds from the largest and best mutation breeders in England, Holland, Belgium, and Germany. I personally select, and choose only the finest quality birds available. Bird dealers are never involved, and I use only U.S. Government quarantine facilities. For more information concerning available mutations, their cost, and how you can purchase them, call or write me as soon as possible. Several mutations are extremely rare; first come first served basis. Roger Bringas, 4210 Sarah St. #36, Burbank, CA 91505. Phone (213) 677-1851.

YELLOW NAPE BABY AMAZONS. Fat and healthy birds. Health certificate on request. We ship anywhere, C.O.D. accepted. Pet stores welcome. Bird Jungle Inc., P.O. Box 262006, Tampa, FL 33685. Call (813) 935-3837.

HANDBRED LESSER SULPHUR CRESTED COCKATOOS. Young babies, super tame, excellent condition, perfectly feathered. Fat and healthy birds, a super pet for the whole family. We ship anywhere. C.O.D. accepted. Live arrival guaranteed. Pet stores welcome. Bird Jungle Inc., P.O. Box 262006, Tampa, FL 33685. Call (813) 935-3837.

CITRON COCKATOOS. Mature birds, very well feathered, perfect condition, ready for breeding. We ship anywhere, C.O.D. accepted, references available. Pet stores welcome. Bird Jungle Inc., P.O. Box 262006, Tampa, FL 33685. Call (813) 935-3837.

BLUE AND GOLD MACAWS. Good personality, s/s male, tame, perfect condition. We ship. Bird Jungle Inc., P.O. Box 262006, Tampa, FL 33685. Call (813) 935-3837.
MATURE SURGICALLY SEXED pairs Scarletts, Blue & golds, large Moluccan cockatoos forage wings $50 ea. Call (713) 459-2555, Houston, Texas.

WANTED, OLDER FEMALE MEDIUM SULPHUR crested cockatoos - only for selfers. Female, but will purchase. D.M.C. Farms, Inc., Rt. 25, Box 69551, Ft. Myers, FL 33912. Call (813) 936-1627.

HAND FED BABY ELCETUS (vesamae). Beautiful male being handfed, $1,000. Also fertile eggs hatching soon. Betty Tanner, (818) 357-3733, north Los Angeles area.

TAKING ORDERS for Indian ringnecks — blue, double split, split to blue, albino and lutino split to blue. Will ship. Barbara Greenburg (818) 987-1888, north Los Angeles area.

MOLUCCAN COCKATOOS. Perfectly feathered, mature birds available, breeding age, beautifully colored. References available. We ship. Pet stores welcome. Bird Jungle Inc., P.O. Box 262006, Tampa, FL 33685. Call (813) 935-3837.

BLUE CROWNED AMAZONS. Handfed, tame and talking. Sweet personalities, healthy baby birds, super pets. We ship C.O.D. anywhere. Bird Jungle Inc., P.O. Box 262006, Tampa, FL 33685. Call (813) 935-3837.

HAND FED MACAWS. We have the following domestic babies available. Blue & golds, Scarletts, Militarys and Greenwings. All of these birds are hand fed at our ranch. Call today for more information. THE PET RANCH, 3015 Pioneer Way, Jamul, CA 92035. Call (619) 698-5876.


RELOCATING, MUST SELL 3 pairs s/s Blue and gold macaws $1100 per pair, one pair Umbrella cockatoos $1000. Call Sharon (904) 878-6235 evenings. Tallahassee, FL area.

BREEDERS SUPPLIS — s/s pairs Hahns macaw $425, Senegal $150, Goffine $350, Patagonians $175, lutino henn, male/lutino $500. Also mature male Plum head $150. Slaty head female mature $175, s/s Indian ringnecks $84 male lutino $150, lutino female $295, mature female $100, Jewell's exotic Birds, L.A. (714) 595-6612.

BIRD FARM in beautiful Central Texas within 36 miles of Austin, State Capitol and high tech center. Warm climate, 1 hour drive to Hill Country lakes and resort areas. Located on 1 acre in thriving community just out of city limits of Taylor, 1/2 miles to shopping center, high school and hospital, comfortable 3-bedroom brick home, young produce orchard, factory built storm cellar, water well, privacy fenced. Insulted bird facilities will accommodate up to 20 pairs large birds. $100,000.00 negotiable. Also reducing stock, some pairs proven breeders, others ready to breed. Address inquiries to Gene & Jo Hall, R.1, N. 11 Sandy Lane, Taylor, Texas 76574, or call (512) 352-8820.

ATTENTION: LORY BREEDERS — I would like to add some breeders to my Lory collection. If you have quality birds to spare contact Stan Carpenter (602) 933-2029.


YOUNG BLACK SWANS spring '85 hatch, also Indian ringneck parakeets, blue, s/s split for blue, early '84 hatch. S.L. Dingle, P.O. Box 340, Norco, CA 92860. Phone (714) 734-7448.

DOMESTICALLY BRED in our aviaries, hand raised and imprinted in our home. Super tame baby Sun, Gold Cap, and Maroon imprinted conures. Also older sexed pairs and quantity prices available. Voren's Aviaries, Florida. (305) 793-5528.

FOR SALE: PARAKEETS ALL COLORS $5 each. Will ship. Also Cockatiels, Finches, Lovebirds and some larger birds, tame and untame. Lakeside Bird Farm, P.O. Box 1203, Tifton, Georgia 31794. (912) 386-8164.

MOLUCCAN BREEDERS. Proven pair. Also spoonfed babies and mature male. Lilac crowned Amazon. Red head, Santa Rosa, CA. Phone: (707) 539-3413.


SUPER TAME HANDFED BABIES: blue & golds, militarys, double yellow heads, African greens, and Moluccan cockatoos. All hatched in Kona and taken out of their nests at 14 days old to be handfed and loved. Steve and Patty Earnes, Hawaii, (808) 328-9713.

PEACOCKS: blues, whites, black shouldered, pieds, Javas, Spauldings, and browns. Ben Caballero, San Bernardino, CA. Call (714) 823-6502 days and weekends.

WHITE FACED cockatiels, breeding age. Phone ‘Gladys’, (313) 682-2205, Pontiac, Michigan.

WANTED: male Dusky Pionus or sell mature healthy female for breeding. San Diego, (619) 466-9957, Dennis or Angela.

TAME LESSER SULPHUR CRESTED COCKATOOS. Very sweet personalities. Well feathered, healthy young birds. Lin-Deco Bird Breeding Farm, Florida. Phone (613) 886-9614.

TAME CITRON CRESTED COCKATOOS. Super nice, handled hand-tamed, healthy birds. Lin-Deco Bird Breeding Farm, Florida. Phone (813) 886-9614.

ECLECTUS HANDFED BABIES — Grand and red sided. Unrelated pairs available. Baby Eleanor cockatoos and red crested parrots. All birds hand raised, super tame and loveable. WANTED: mature male Triton. Call Jen or Frank, (305) 889-2131, Hollywood, FL

SUPER TAME UMBRELLA COCKATOO. Very nice personalities, make lovely pets. We ship C.O.D. Please contact us for our very special prices and further information. Lin-Deco Bird Breeding Farm, Florida. Phone (813) 886-9614.

CARLSON PREMIUM SPRAY MILLET. Shipped anywhere in the U.S. except Hawaii and Alaska. Pre-paid 5 lb. box $15. Remit to: Fine Feathered Friends, 7878 Deering Dr., Canoga Park, CA 91304-5005. Phone orders, Visa and MasterCard accepted. (818) 340-6318. California residents add 6.5% sales tax.

Tame Moluccan Cockatoos. These birds make great pets. Very large, well colored, perfectly feathered and in good healthy condition. Lin-Deco Bird Breeding Farm, Florida. Phone (813) 896-9614.

Super Nice Grand Eclectus Baby. Female with very extraordinary colors, handled from day 8. Very large and beautiful parents. Contact us for more details on this special baby bird. Lin-Deco Bird Breeding Farm, Florida. Phone (813) 896-9614.

Domestically Raised — Hand fed Suns, Jendays, Goldcaps, Gold-crows, Halmoons as well as several other species. A few Pionus, Eclectus, Amazons & Macaws. Stan or Fred, 602-983-3028.


Buttrick’s Aviaries: Thousands of birds always in stock! We import, breed, and broker high quality cockatoos, conures, parrots, cockatiels, and many hand fed, tame and talking! Low wholesale and retail prices. Tremendous quantity discounts. All birds guaranteed healthy or free replacement! 17887 U.S. One, Tequesta, Fl. 33458. (503) 747-8294.

Do You Have Trouble finding healthy pet quality birds? Choose fat, bright eyed, well feathered parrots. Contact us for more details on these birds? Priced by us. Also mature pairs. Critters Corner, San Jose, CA. Call (408) 297-2852, Phoenix, AZ.


Attention Breeders: s/s pairs of mature military Macaws, only $800. The Pet Ranch, 3015 Pioneer Way, Jamul, CA 92035. Call (619) 698-5878.


Attention Breeders: We are selling our breeding pairs of double yellow headed Amazons. S/s mature and pair bonded, $900. The Pet Ranch, 3015 Pioneer Way, Jamul, CA 92035. Call (619) 698-5878.

Domestic Cockatoos: lesser cichlon, Eleonora, Goffin’s, triton, greater, Moluccan, rose-breded babies. Hand fed babies and pairs available. Critters Corner, San Jose, CA. Call (408) 578-4414, ask for Jim.


Handfed Domestic Amazons: blue front, double yellow, spectacle, lilac, red head, plain, colored — both sexed pairs and hatched. Critters Corner, San Jose, CA. Call (408) 578-4414, ask for Jim.

Handfed Domestic Handfed: blue & gold, hyacinth, green wing, military, Caiula, calico, multi-colored. All hand fed by us. Also mature pairs. Critters Corner, San Jose, CA. Call (408) 578-4414, ask for Jim.

Eclectus; grand, red-sided, Solomon Island (Vosmaeri), babies and unrelated pairs. Congo greys handled babies and pairs. Critters Corner, San Jose, CA. Call (408) 578-4414, ask for Jim.

Cuttlebone — pure and natural. New, lower prices. 6-13¢ and cleaned, 5 lb. at $3.90 per lb. ($19.50), or 10 lbs. at $3 per lb. ($30). Schroeder & Atkinson, 644 South Isis, Glenwood, NC 28608. We surgically sex birds (9-84).

Button Quail, silver and normal chicks $3.00 each. Adults: normals $10 a pair, silvers $15 a pair. Doves and finches. Debbie Mills, Rt. 4, Box 1108, Los Lunas, NM 87031. Call (505) 865-0331.


We specialize in birds. Have other pets and supplies, carry Leach seed. Special price on 300 pounds or more. We buy birds and small animals, also take birds on consignment. Open 11 a.m. to 6 p.m. No shipping. S & A Pets, 15800 East Amar Rd., City of Industry, (816) 369-3843.


Wanted — Macaw and Parrot Feathers — Cash for feathers dropped by your birds when they molt. Macaw tail feathers $25 to $10 each. We are prepared to buy in any quantity. More information and detailed price list on request. Kevin Schneider, 14056 Jennings Vista Way, Lakeside, CA 92030. Phone (619) 561-6303.

Domestic Handfed Parrots: Congos, Amazons, Macaws, Parakeets, Cockatiels, Pionus, Australian Greys. Pairs or singles available also. Many birds in stock. Waterfowl, Vulturines, Guineas, Ratites, and more. S.A.E. Exotic Avian Specialties, Rt 6, Box 387, Corvallis, Oregon 97330. Call (503) 745-5240.

Eclectus — Big, beautiful, handled babies. Adult birds on occasion. Bernie Conner, Phone: (707) 526-7111.
