COOK®
VETERINARY PRODUCTS
VETERINARY OBSERVER

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Billy with Perth Zoo Animal Health Keeper Jo Cowie *Picture courtesy The West Australian*

'Billy' bounces back!

Nasal tube gives newborn giraffe a second chance

By Michelle Rouffignac VN, Animal Health, Perth Zoological Gardens, Australia

On November 14, 1996, a male Rothschild Giraffe was born at Perth Zoo. The next morning he was observed by a keeper to be in distress and unable to stand.

On examination he was diagnosed as being very weak: his heart rate was 140bpm; he had a subclinical body temperature, pale mucous membranes, dehydration and possibly ligamentous/ muscular damage and nerve damage in the limbs. There was no sign of any fracture. We gave treatment for shock and placed him on intravenous fluids.

The veterinary team and the Curator of Hoofstock discussed the options for the young calf. He was too weak to feed from his mother, and the decision was made to hand-rear him.

The young giraffe accepted his first feed of 600ml of milk formula from a bottle with a large calf teat. We supplemented his next feed with colostrum — he drank 1900ml and had responded well to the supportive therapy.

He refused the following feed, and the decision was made to pass a nasogastric tube and force feed him. We used a foal feeding tube, which was slightly more rigid than we would have preferred, but it was the only tube suitable at hand.

He refused to suckle, and on the advice of a specialist from Murdoch University Vet Science, we decided to place an indwelling nasogastric tube to reduce the trauma of constant handling and restraint.

We approached COOK VETERINARY PRODUCTS for a suitable tube, and they came up with the perfect soft tube.

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Workshops and Conferences

Brisbane, Australia

Cook Veterinary Products Sponsored Workshop at the University of Queensland, September 13–15, 1996

In response to an increasing demand by practitioners for more hands-on continuing education programs, the first of a series of Australian practical skills workshops was held at the University of Queensland Veterinary Teaching Hospital in September.

The workshop, titled "Investigation and Management of Acute Emergencies in Small Animals", was a collaborative effort of COOK VETERINARY PRODUCTS and the University of Queensland Veterinary Teaching Hospital.

The overall objective was to provide veterinarians with practical skills in emergency procedures which can be implemented immediately on return to their surgery. Areas covered in the workshop included pain recognition and management, venous access, oxygen therapy systems, respiratory emergencies, cardiopulmonary resuscitation, the acute abdomen and enteral tube placement.

A secondary objective was to encourage information exchange between practitioners. Veterinarians have a reputation for being intensely practical, resourceful and inventive, and many new ways of performing old tricks were uncovered during the weekend.

Louisiana, USA

Cook Veterinary Products Sponsored Workshop at the University of Louisiana, October 25–26, 1996

On October 25 the first hands-on workshop in the United States conducted by COOK VETERINARY PRODUCTS was held. The venue was Louisiana State University.

The program was put together by Richard Denniston, a Research Assistant, Charles Looney DVM, and Don Shawver, COOK VETERINARY PRODUCTS technical representative.

The workshop was a two-day program conducted in the area of assisted reproduction.

Topics covered over the two days included: history of ET and IVF, commercial experience in ET and transvaginal oocyte aspiration in the bovine, reproductive ultrasound in large animals, ultrasonography in the horse and the cow, the equine uterine flushing system, equine pregnancy diagnosis and foetal sexing, equine twin reduction, and equine AI and ET.

After the lectures, particpants practised with their new knowledge at work stations for procedures such as bovine and equine oocyte aspiration, follicular flushing and foetal sexing.

Workshop participants practise acute emergency management at the University of Queensland, Australia

Milwaulkee, USA

Cook Veterinary Products Sponsored Workshop at the Animal Emergency and Referal Center, November 1996

Under the instruction of Dr Dennis T. Crowe and Dr Rebecca Kirby, delegates were guided through a variety of critical care and emergency procedures. The one-and-a-half-day program provided the opportunity to gain further practical experience in the areas of vascular access, thoracic drainage, oxygenation techniques and enteral feeding.

Jerusalem, Israel

XXIst Congress of the World Small Animal Veterinary Association, October 20–23, 1996

The COOK VETERINARY PRODUCTS team attended the XXIst Congress of the World Small Animal Veterinary Association in Jerusalem, along with about 40 companies exhibiting products. The 1997 WSAVA will be held in April with the British Small Animals meeting in Birmingham, UK.■

Billy recovers from birth trauma

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Once the tube was in place, we maintained the giraffe on a regimen of four-hourly feeds. At each feed he was initially offered the bottle and encouraged to suckle. He was also helped to his feet and assisted to walk at each feed.

As he gained strength, his sucking reflex grew stronger and he began to bottle-feed. We removed the nasogastric tube on November 23. He is now drinking between 10 and 15 litres of milk formula per day, eating browser pellets and chewing on browse. He is able to stand unassisted, walks normally and even gambols about much like a frisky foal. He is spending short periods of time out on display with the rest of Perth Zoo's giraffe group.

"Billy" is only a temporary name used by zoo staff. His permanent name will be chosen later, probably with input from the public. ■

Vital-Por t used in long-term intranasal flushing

By Malcolm Ware BVSc and Lisa Weldon BVSc, Whittlesea Veterinary Clinic, Victoria, Australia

Twistie was a 12-year-old Kelpie-cross that six months previously had been diagnosed with a nasal adenocarcinoma and secondary fungal infection. Prior to rhinectomy, flushing catheters were inserted into the nasal cavity to allow daily treatment. This technique caused much discomfort to the dog, who constantly scratched and rubbed the catheters out, thus requiring constant replacement.

Post-rhinectomy, Twistie re-presented six months later with a mucopurulent bilateral nasal discharge due to a secondary bacterial and fungal contamination of the nasal sinus. Aggressive therapy with oral antibiotics was initiated. The mucopurulent discharge recurred as soon as antibiotic therapy ceased.

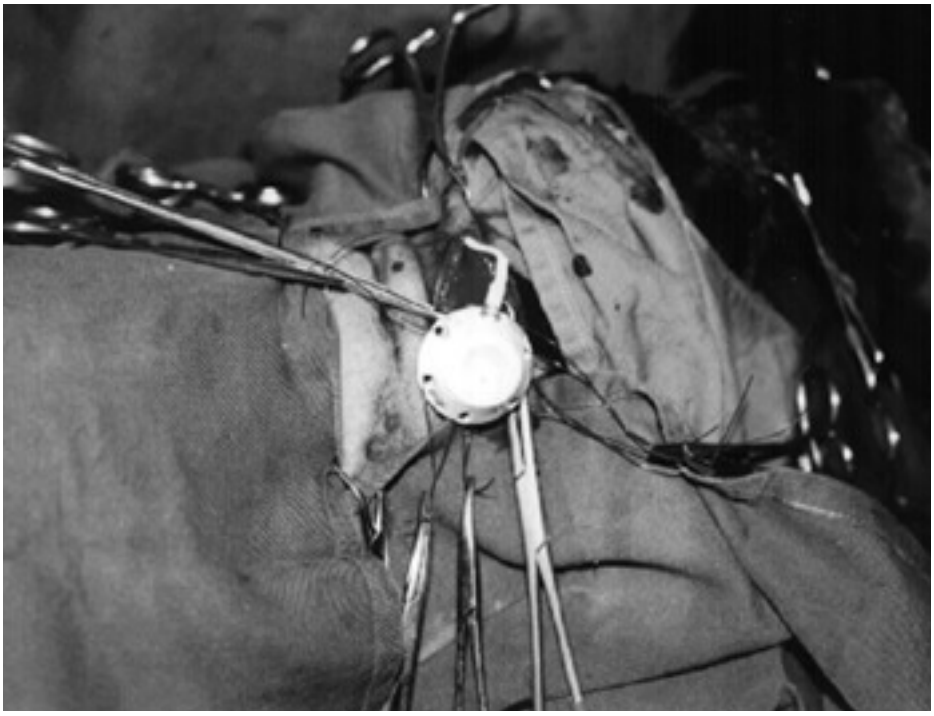
In human medicine, Vital-Port vascular systems are used for long-term intravenous therapy to maintain patency of vessels. After discussion with COOK VETERINARY PRODUCTS, we decided to implant this system to allow constant access for flushing.

Another rhinotomy was performed to re-explore the nasal cavity and implant the Vital-Port system. This treatment was purely palliative, in order to decrease the dog's distress due to the nasal discharge.

This system is composed of an injection chamber attached to a variable length silicone catheter. We fenestrated the distal 15cm of the catheter, curled it into the nasal cavity and secured it with non-dissolving sutures to the dorsal surface. The catheter was then passed out through an aperture in the corner of the nasal bone, tunnelled subcutaneously, midline over the head to join with the injection chamber.

The injection chamber was implanted subcutaneously over the wing of the atlas. The chamber (port) was placed so as to be easily accessible, on a stable platform for daily injection.

Twistie could now be easily treated intranasally by her owners, who injected a mixture of saline, antiobiotics and antifungal agents directly into the port, easily palpable subcutaneously. This technique successfully flushed the mucoid discharge from the nasal cavity out through the nares and reduced the dog's discomfort. ■



The Vital-Port®, shown prior to placement in the subcutaneous pocket in the neck

Live giraffe offspring by AI

By Dr Bill Foxworth, College of Veterinary Medicine, Texas A&M University, USA

Initial studies for the development of artificial insemination in the giraffe (*Giraffa camelopardalis*) led to the successful production of a live offspring.

A regimen of prostaglandin F2a was administered to a female giraffe for the synchronisation of oestrus. Following the final injection of prostaglandin F2a, ultrasonography was used to monitor follicular development and ovulation.

At this time, semen was collected from an unanesthetised bull giraffe in a physical restraint by electro-ejaculation. The semen was diluted in a bovine semen extender (BF5F), slowly cooled and maintained at 4°C for the next 48 hours.

Every 12 hours the ovarian status was evaluated and a dose of semen placed in the uterus of the female. Semen was loaded at 4°c into a 0.5cc straw, loaded into a rigid insemination gun and placed inside the vagina of the giraffe, where it was warmed to body temperature.

Attempts were made to pass the insemination gun through the cervix into the uterine body. However, due to the anatomic structure of the giraffe cervix, in which the annular rings of the cervix are offset from each other, the gun could not be passed into the uterine body. Therefore, the semen was deposited inside the cervix cranial to the second cervical ring. The female was inseminated four times.

Pregnancy was confirmed 30 days post-insemination by ultra-sonography and following an uneventful gestation, the giraffe delivered a healthy female calf.

Studies are underway to develop methods to facilitate passage of the inseminaton dosage into the uterine body, as well as to reduce the number of inseminations and determine the optimal timing of insemination. ■

Insertion of an intranasal oxygen catheter

Dr Geoff Gibbons BVSc, MACVSc, FRCVS, Homebush Animal Hospital, NSW, Australia

The technique of tube insertion is the same as for a nasogastric tube.

For cats, use a 3.5 or 5 Fr, 20cm silicone nasal oxygen tube (V-PFT-3.5-20 or V-PFT-5-20); for dogs, use a 6, 8 or 10 Fr, 35–55cm silicone tube (V-PFT-6-35 to V-PFT-10-55), depending on the size of the dog. Wire guide stylets are available for these if needed (V-SF-28-40 to V-SF-45-60). More rigid tubes will kink as they pass out of the nose and consequently are useless.

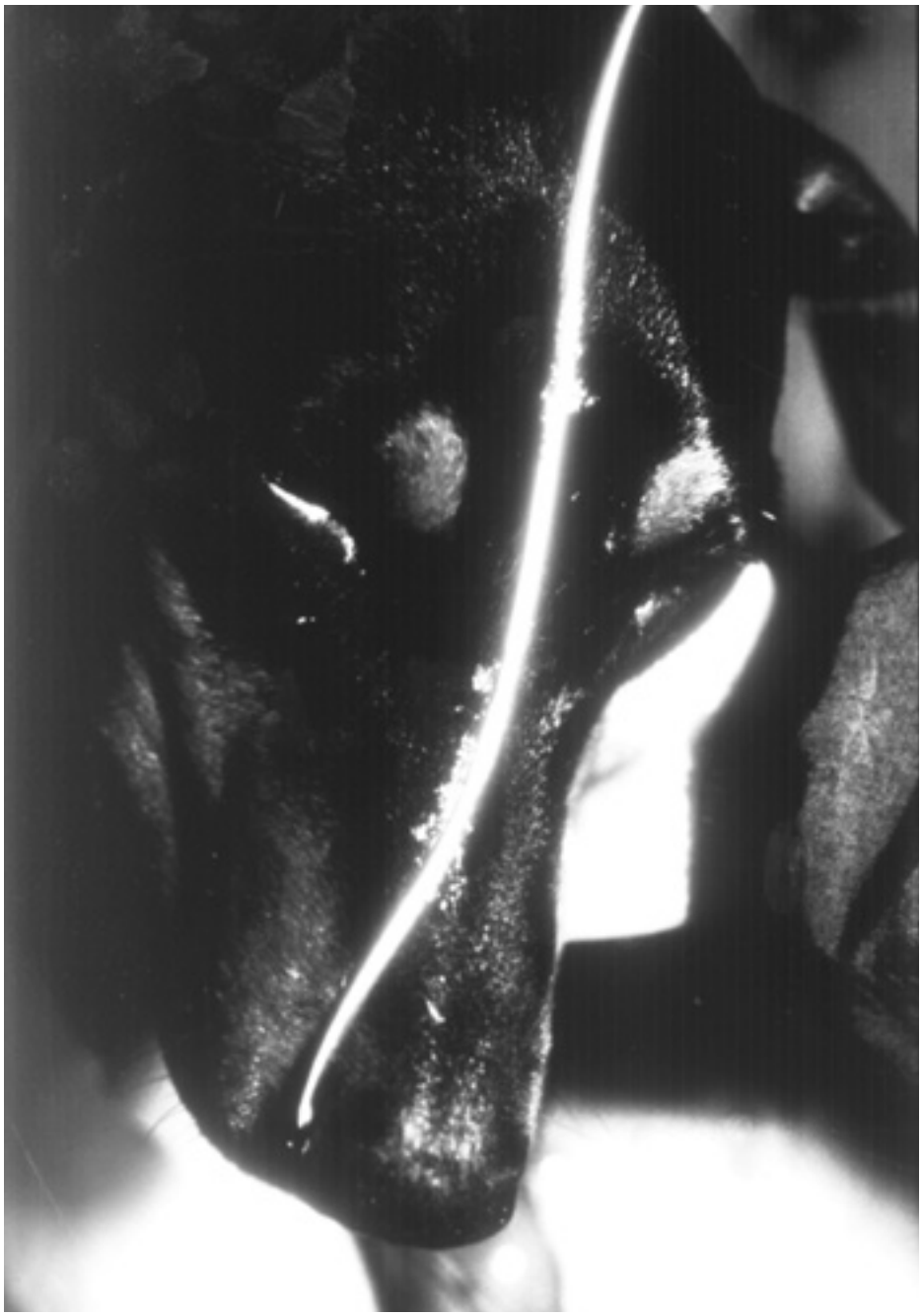
The tube is passed through the ventral nasal meatus of the dog or cat after anaesthetising the nasal passages with two or more drops of local anaesthetic solution. Larynx spray seems to be more effective than 2 per cent injectable lignocaine dripped into the nares. Premeasuring and marking the tube will facilitate its passage to the level of, or just beyond, the medial canthus.

In the dog, the nasal plane is elevated and the tube inserted caudo-ventro-medially; in the cat, the nasal plane is not elevated.

It is important to secure the tube as close to its exit from the nose as possible. Cyanoacrylate glue (Ten Second Super Glue) is used to fasten the tube as it passes through the slit on the lateral side of the nose and to spot glue it as it passes over the midline of the muzzle and head to the neck where it is connected to the oxygen line with a tubing adaptor (V-P412 or V-PFLLA-VTA).

This connection apparatus is looped like an I/V line and fastened to the neck with 2.5cm Curity tape or Elastoplast which encircles the neck like a collar.

Humidified oxygen is delivered at 50–100ml/kg/min. This method of oxygen delivery can potentially raise the pO_2 to more than 100mm Hg and is adequate for oxygen supplementation in most cases that do not require assisted ventilation. ■



Final placement of an intranasal oxygen catheter