

PANDEMIC OF PERIODONTAL DISEASE A MALODOROUS CONDITION

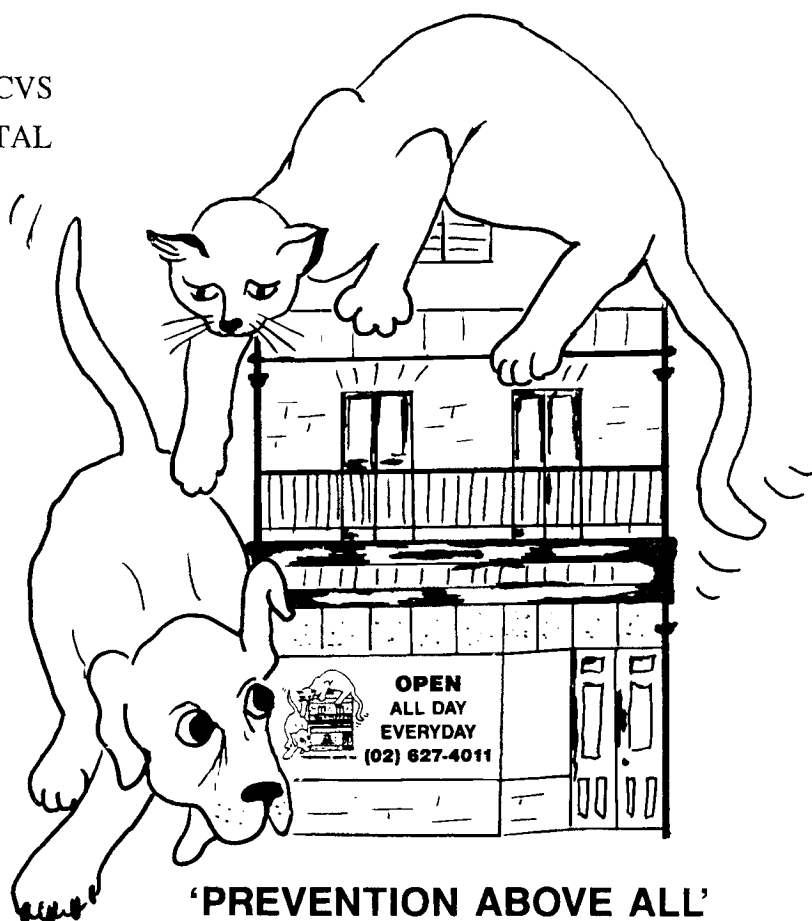
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PANDEMIC OF PERIODONTAL DISEASE A MALODOROUS CONDITION

The periodontal disease pandemic has passed unnoticed until recent times. Now, generally accepted as affecting greater than 80% of domestic cats and dogs, the subject is firmly on the agenda (Upjohn Pharmaceutical Company).

This paper attributes the pandemic to widespread feeding practices promoted by the pet food industry. The insidious toxic and bacterial challenge is described.

Despite the size and complexity of the situation relatively straightforward solutions are offered.

PERIODONTAL DISEASE – THE SILENT DISEASE

Nomenclature does vary and, by employing Dr. Gary B Beard's description, we can define the area of interest.

"Periodontal disease is actually a continuing process rather than individual stages."

STAGES OF PERIODONTAL DISEASE

Healthy – Sharp gingival margin, shrimp colour, normal stippling and no odour.

Grade I – Marginal gingivitis. The leading edge of the gingiva appears inflamed. Odour is usually present.

Grade II – Moderate gingivitis. Inflammation of gingiva with the addition of edema causing margins to swell and begin to roll.

Grade III – Severe gingivitis. Increased edema, red to purple margin with rolling occurring. Beginning pocket formation beyond normal 1 to 3mm depth. No loss of attachment at this point.

Grade IV – Moderate periodontitis. Severe inflammation, deep pocket formation, beginning bone loss with epithelial attachment loss and a slight increase in mobility.

Grade V – Severe periodontitis. Advanced epithelial attachment loss, advanced bone loss, tooth mobility and tooth loss.

Wide variation occurs but general rules do apply.

1. Not all stage 1 gingivitis progresses.

2. Advancing periodontal disease must be preceded by gingivitis.
3. Subgingival bacterial plaque is implicated as the most significant component in the disease process.

The above observations derive from human dentistry and study of the adult dog and cat.

Where doubtless the presence of plaque ensures the continuing process,

Inflammation of the gingiva can be caused by other than plaque. In animals three most important causes are:

1. Foreign body lodgement. Such as hair and grass seeds from self grooming. Splinters of wood or cooked bone from chewing.
2. Trauma occasioned around the mouth is common in cats and dogs as they chew on objects, food or settle their differences with each other.
3. The most frequently overlooked trauma induced gingival inflammation is that of teething.

Cats and dogs cut their deciduous dentition between 2 and 6 weeks of age.(c.f. humans 6 – 24 months).

The second set force through the gums between 4 and 6 months. (c.f. humans 5 ½ – 18 years).

This rapid rearrangement of teeth brings about a severe gingivitis. Both the erupting teeth growing through the tissues and the deciduous crowns being forcibly torn from their epithelial attachments.

**THE CRUX OF THE WHOLE ISSUE IS THIS.
GINGIVITIS IS CURABLE**

ADVANCED PERIODONTAL DISEASE IS NOT

"GINGIVITIS CAN BE CURED IN ABOUT 4 TO 5 DAYS"

The Dental Health Information of the Dental Health Foundation-Australia is reproduced.



dental health INFORMATION

S82

YOUR SMILE: GUMS ARE JUST AS IMPORTANT AS TEETH

Just as a good frame enhances a fine painting, firm healthy gums improve the appearance of sound, white teeth. Gums that are red and inflamed detract from an otherwise pleasant smile. Healthy gums, or to give them their correct name, gingiva, do not bleed when brushed. If bleeding does occur this invariably means that the gums are inflamed — a condition known as gingivitis.

If plaque is allowed to build up on teeth near the gum margin, toxins from bacteria in the plaque begin to attack the gums. The first outward sign of this attack is that the gums become reddened and bleed easily when touched.

At this stage the gums can be easily returned to a healthy state. However, if these early warning signs are ignored and plaque is allowed to accumulate further, more serious damage can occur. The toxins from plaque begin to seep down between the gum and the tooth destroying the bone and fibres that hold a tooth in place. Eventually, if no treatment is received, the tooth becomes very loose and may even fall out. This loss of supporting bone and fibres is called periodontitis.

CURING GINGIVITIS

Gingivitis can be cured in about four to five days. The secret is actually to clean the bleeding gums more, not less. This tends to run counter to normal medical advice for other bleeding areas on the body. However, gums are different.

First, select a soft toothbrush with a small head and bristles that are trimmed flat. Using a toothbrush and water only, aim the bristles at an angle of 45 degrees towards the gum line and move the brush with either a circular or jiggling motion. Do not use toothpaste initially as the foam tends to cover up the bleeding sites. Furthermore, the flavouring in the toothpaste makes one feel that the mouth is more plaque-free than is the case.

Keep brushing until there is no further taste of food in your mouth. Then, and only then, use a fluoride toothpaste. The fluoride from the paste helps strengthen the teeth and keep tooth decay at bay.

On the first day, the gums will bleed and feel sore. The second day the gums will bleed more and feel even sorer. The same thing will happen on the third day, by which stage you may be saying that the whole treatment is madness and you may be thinking of giving up. Do not! By about the fourth to fifth day the gums will start to feel better and become firmer and healthier. This will be noticeable by the virtual absence of bleeding. A day or so later the gums will not bleed at all upon brushing.

To complete the return to normal, dental floss, dental tape or soft wooden points should then be used after brushing to remove any remaining plaque between the teeth. Brushing and flossing should be done thoroughly at least once each day.

WHY USE A SOFT TOOTHBRUSH?

A soft toothbrush is best because the bristles have more flexibility to get further into tight spaces than bristles in a hard brush. Furthermore, a hard toothbrush can damage teeth if used in the wrong way.

WHY DENTAL FLOSS, DENTAL TAPE OR SOFT WOODEN POINTS?

No toothbrush can routinely remove plaque from between the teeth. This is why dental floss, dental tape or soft wooden points are needed.

Unfortunately some people have difficulty in using dental floss, particularly the unwaxed variety. They find that it shreds and tears when they pass it between tight teeth or between teeth with old fillings. It is not surprising that many give up when this happens.

In recent years another version of floss — dental tape — has become available in Australia. Although it has not received much publicity, it is an excellent product. It can be used with confidence where unwaxed dental floss just would not stand up.

HOW OFTEN SHOULD PLAQUE BE REMOVED?

Plaque should be removed carefully at least once each day to keep gingivitis at bay. This means using a toothbrush followed by dental floss, dental tape or soft wooden points.

In many households, mornings are not a good time for meticulous plaque removal because everyone may be busy getting ready for school, work and so on.

The only permanent way of treating and preventing gingivitis is to practice careful plaque control. During the first few days of gingivitis treatment when the gums feel sore after brushing, a couple of simple home remedies can be of help. Rinsing with a warm salt water solution or applying a baby's teething jelly after brushing may make the gums feel more comfortable. It must be stressed, however, that neither of these treatments has any effect on the gingivitis itself.

Gingivitis is an early warning sign that the gums are unhealthy. Treatment is simple, straightforward and carried out at home. However the whole secret of the treatment is to persevere through the first few days when the gums bleed and feel sore. Once gingivitis is gone it will not return as long as one brushes properly and cleans between the teeth with dental floss, dental tape or soft wooden points once each day.

Human dentists tell of gum massage using a tooth brush, dental floss, tape or soft wooden points. Applying these to the bleeding gums over a period of 4 to 5 days the problem can be resolved. Of course there is the implied understanding that to maintain a programme of brushing and flossing is to prevent gingivitis occurring at all.

For our animals we can adopt the tooth brushing technique. In reality a laughable concept. Have you ever tried brushing a cooperative friend's teeth with every opportunity for verbal and non-verbal communication?

Come to think of it, do you know how best to brush your own teeth?

Now given that the carnivore mouth is a multi-component system always at risk of gingivitis, then how has nature coped with the challenge?

Darwin provided that answer and in a word by ADAPTATION.

Unlike ourselves nature can handle seemingly mutually exclusive requirements with a myriad of finely balanced mechanisms each modifying the contribution of the other.

If we were to create a machine for ingesting and powdering bone then the initial hopper would comprise heavy duty steel jaws. No sane engineer wishing to keep his job would advance any other proposal.

The carnivore in its slow process of adaptation has many other constraints to take account of. True the diet of raw meat and bone requires strong teeth but had nature utilised the engineer's methods the resulting structure would have been too heavy and cumbersome, and besides the soft body would need to interface somewhere.

Nature's way is simple, bold and daring. Rather than a series of gradations from hard tooth through to soft supporting structures, nature takes the appropriate view. It recognises that the supporting structures are going to be subject to constant attrition and, therefore, makes the gingiva the second most biologically active tissue in the body.

There are known threats to the integrity of this system.

- The neonate carnivore must compete for food so the teeth erupt almost simultaneously.
- The hard bone, teeth and hooves of the prey represent formidable structures to be encountered and dealt with. Consequently the oral cavity is well served with nervous tissue keeping the animal informed of safe, necessary or simply dangerous conditions.
- Since the oral cavity is used for grooming there is often the accumulation of hair and faecal material. Food scraps are always liable to become trapped and decompose.
- Most significantly of all the ubiquitous plaque constantly accumulates and, if left undisturbed, begins to calcify within 24-48 hours (calculus holds the plaque in close apposition to the gingival sulcus shielding it from abrasive forces).

Nature's way of resolving these matters is to ensure a good wash, clean, massage, and polish at feeding time. In case you doubt the efficiency of this, take a break and munch on a crisp apple or carrot. Carefully check out what is happening to your tongue, salivary glands, teeth and gums. Now go to the 'fridge, take out a raw lamb chop or T-bone and try the same approach. Simple, the ultimate test of any system - IT WORKS.

WHY IS THERE SO MUCH PERIODONTAL DISEASE?

The potential exists in any mouth, but at the present stage it is hard to say what exactly are the major determinants. Chaos theory has it that the proverbial butterfly flapping its wings in the Amazon will precipitate the snow storm in New York. So it is with oral pathology that small constantly applied changes may shift the balance in favour of gingivitis with still other changes shifting the balance in favour of advancing periodontal disease and tooth loss.

THE ONE SURE ASPECT IS THAT REGULAR DAILY MASSAGE OF THE GINGIVAL SULCUS KEEPS THE PROBLEM AT BAY. NATURAL RAW DIETS OF FRUIT, VEGETABLES AND RAW MEATY BONES PROVIDE THIS MASSAGE - PROCESSED FOODS DO NOT.

Canned food slides down without ever troubling the gingiva. (5 out of 10 cats and dogs in western Europe are fed canned food every day) Dr. Dan Carey of the IAMS Corporation maintained that animals on canned food would require six-monthly prophylactics. Dr. Jo Wills, Scientific Affairs Manager Waltham, expressed as a point of pride that their research animals received 6 monthly prophylactics to resolve/control dental health problems.

Dry food is mostly bolted whole as the carnivore's preferred means of ingesting food. Some animals will crack the biscuits much as we would crack a nut. No animals press the abrasive compound around the gingival sulcus. It would be tantamount to sand papering the gums. Personal experience tells you that chewing a biscuit results in no gum massage. Just the contrary. In fact the resultant sludge of biscuit paste needs to be brushed away since one's tongue cannot reach the crevices. Any small animal clinician can attest that dry food is swallowed whole. Owners feed the stuff ad-lib and frequently forget to advise the surgeon. The facts are made known as routine surgery becomes major calamity as fishy shapes and stars are vomited by the anaesthetised pussycat. Dogs with gastric torsion almost invariably contain quantities of whole kibbles.

Table scraps and home prepared meals do no more than canned food.

Hunks of raw meat are already part processed (i.e. cut off the bone) are swallowed whole and do nothing for the gums.

Raw hide chews and pigs ears are jokes. They are of no interest to cats and, in any event only massage the grinding surfaces of which there are very few. It is true that the tongue, jaw muscles and salivary glands gain stimulation.

Natural foods cannot always solve the problem. For instance:

In nature gnawing on bones occurs at every meal. Plaque calcifies within 24 - 48 hours thus bone chewing at any greater interval cannot resolve the problem.

Where opposing teeth have been removed, even daily bone chewing does not serve to massage gum. A progressive uncontrolled periodontal

disease will set in. (Naturally other methods can be employed to focus on local areas)

Saddest case of all is the cat or dog which has never been fed a raw bone. At 6 years of age major dentistry is performed and the learning process has to be initiated. Not infrequently the owner cannot/will not persevere and the animal is condemned to a lifetime of misery. (Remember the abundant nerve supply to the mouth)

Confusion as to difference between raw and cooked bones has seen all bones withdrawn from the diet.

Real concerns over parasitic disease transmitted in raw meat. Holes dug in the garden, fights over bones and the difficulty some dogs (e.g. Bull dogs) may have with some bones has seen the poor old bone relegated to obscurity.

To summarise why periodontal disease occurs with such regularity is to say that teeth and gums lack regular massage. Persistence of the old myth, that you should not feed raw bones and the introduction of the prevailing new myth, that processed foods represent a 'complete and balanced diet'.

These myths coupled with the fact that the significance and prevalence has been overlooked (the silent disease) and the scene is set for the current pandemic.

ASPECTS OF IMPORTANCE but given inadequate attention.

A. Early onset.

Those who describe periodontal disease are given to drawing sections through a tooth in its sulcus. The whole is represented as a static object with the demon plaque in the gingival sulcus releasing its toxins and so dissolving the periodontal ligament. In fact clinical evidence of some of the worst halitosis (evidence of mighty bacterial infection) and visible gingival oedema and inflammation occurs as the teeth cut the gums in the 4-6 month old kitten/puppy. No diagrams have yet been viewed of this, but effectively they have periodontal disease before they have a complete periodontium. An impossible case in nature, for any young animal would be obliged to gnaw on tough food and thus contain the inflammation. Any young animal that did not gnaw on

tough food would not have eaten and would have starved to death. (We feed the slops and guarantee lifelong torture) The literature contains numerous references to immature animals succumbing to hyper. or hypoimmune conditions or bacterial challenge. I suggest that most of these derive from oral inflammatory disease.

B. Lifelong pain.

Let's be clear, many of these animals suffer excruciating pain. Small dogs, their tongues constantly wiping round the inflamed gums and rotten teeth. Cats shrinking with pain as they bite into canned fish. Animals anaesthetised to the point where pedal and palpebral reflexes are absent still 'chatter' and 'wince' when their diseased gums or teeth are merely touched with a probe.

C. Catastrophic consequences.

Statements like the following abound:

"The haematogenous spread of bacteria, originating in dental calculi and embolised by manipulation of the gingival capillaries during dental procedures and even mastication, have been documented in man and other animals. This spread of bacteria, or anachoresis, to other organ systems can result in peritonitis, glomerulonephritis and endocarditis."⁹

"Veterinarians have long suspected, and research supports, the fact that periodontal disease can become systemic and can predispose the animal to problems such as right side heart failure, hepatic compromise, renal failure and bone marrow depression. This anachoretic effect can have drastic repercussions on the overall health of the pet and represents one of the greatest challenges facing small animal practitioners today."⁹

My reasoned belief is that our animals have not adapted to withstand perpetual toxic and bacterial challenges of periodontal disease.

The constant immune struggle takes place not only in the mouth but also the capillary beds of all other organs. Add to the mix persistent or interrupted bacteraemia, and the onset of major organ disease is easy to conceptualise. Non-specific

malaise and ill thrift fit with these explanations too.

Two problems exist to frustrate the definitive statement.

1. Due to extended time frames of challenge and the multifactorial nature of the diseases suggest that statistical analysis would be most helpful. For statistical analysis to work we need a large control group of animals without periodontal disease. Since virtually all animals are fed processed food, all have periodontal disease and we lack a control group.
2. Whilst it is fair to derive hypotheses by induction, we need to test these hypotheses by rigorous scientific testing. This can be a costly exercise likely to give results that the pet food industry would rather not hear.

Dr. Patrick Pietroni takes the view that much of modern medical science is characterised by too much rigor and insufficient relevance. I tend to agree and believe that unproven clinical anecdotes can illuminate much that traditional science obscures. The new science with its computer modelling can cope much better.

CLINICAL EXPERIENCE

With the pandemic running at 80% plus there is no shortage of available cases. Any condition that runs at that level of prevalence is in danger of being unremarkable, and this is indeed what has been the case for so long.

Once sensitised to the existence of the problem one finds it everywhere.

Twelve-week old kittens with appreciable calculus on their premolars. Five-month old kittens and puppies with the most frightful breath. These animals are being identified at routine vaccination or de-sex. Their owners seem oblivious to the present and impending problems of serious disease.

Happily, the young animals will readily accept a change of diet and at the next check-up clients report on the lack of breath odour and the enthusiasm for the new raw meaty bone diet.

We practise on the fringe of the city and with the outward migration to the newer suburbs we gain numerous new clients. These clients tend to be 'vet users' already habituated to veterinary visits

and not unhappy with previous advice. Sometimes the first visit is for annual vaccination, but at other times for serious illness. In almost 100% of cases the animal suffers a vile mouth.

Once upon a time we used to thrash around identifying and treating the presenting complaint. After all that is what the client expected, and what we were trained to do. Precise diagnosis and accompanying precise treatment had to be dispensed. The instant cause - effect - diagnosis and cure with magic bullets. Only tentatively did we offer to do something for the insidious mess fulminating away in the oral cavity.

How woefully wrong we were. Now we elevate to top priority that which is happening in the mouth. A visit for routine de-sex is seized on as an opportunity to refer to the stench emanating from the mouth and the likely development of serious disease. These are the moments when the toothbrush advertisements can be used to maximum effect. The lurid illustrations are displayed and the client asked to choose between daily toothbrushing or a change of diet.

In every instance of nephritis, cardiomyopathy, chronic active hepatitis, chronic diarrhoea, septic arthritis and the list is endless, the patient has a septic mouth. Of course we treat the presenting condition and, as soon as possible, initiate the appropriate oral care. Also there are just too many cases where the appropriate dentistry un-

der general anaesthetic cannot be performed on the critically ill patient.

We talk of immune systems being under perpetual stress, of consequent exhaustion and thresholds being exceeded. Reference to the tug-of-war teams and 'straw on the camel's back' are readily understood by the clientele. Clients like explanations and now we can provide.

Follow-up care always emphasises feeding for health matching the organism to the diet it has evolved to live on. Some patients need much in-hospital coaxing to change their diet, but even toothless Pomeranians and Persians will gum a chicken wing into a fraction of its original form. Tooth brushing can be tried in a few cases and especially where opposing teeth are missing.

Dramatic cases are seen which exceed our greatest hopes. Three case studies are included on the next 2 pages.

The consequences of the new evangelical approach are numerous and self-perpetuating. Number one is the improved staff morale now we have stumbled on the golden key. Clients convert to disciples over night. They so enjoy the benefits and communicate them far and wide.

It is true we experience difficulty inducing people to return for checkups. The problem is the animals are healthy. If we had to guesstimate in the long term, 50% of our business will be lost due to the prevalence of health.

Plasma Cell Pododermatitis of Cats

No. 3270 Tom Lonsdale, Riverstone Veterinary Hospital, Garfield Road, Riverstone, NSW 2765
Tel (02) 627 4011 25.05.92

The extensive feeding of processed food and the equally extensive prevalence of periodontal disease has come under scrutiny. Recently I have dealt with two cases of an obscure nature. The absence of raw bones, or presence of periodontal disease seems to be implicated somewhere in the pathogenesis.

Muller, Kirk and Scott state that "The cause of Plasma Cell Pododermatitis is unknown ... Hyper gammaglobulinaemia, lymphocytosis and the histopathologic findings suggest an immunologic basis. The therapy of choice is not clear".

Case 1

01.07.91 Toby, 4 year old de-sexed male. Clinical findings pododermatitis, and as with any 4 y.o. cat on processed food, moderate to severe periodontal disease. Treatment consisted of dental overhaul, post op. course of amoxicillin. A raw chicken wing to be included in diet daily. Histopathology confirmed the diagnosis.

Case 2

29.01.92 Alf, 7 year old de-sexed male. Findings and treatment same as for Toby. Histopath not performed. In both cases the ulceration healed in about 7 days. The pads have remained soft but otherwise there has been no relapse up to the time of writing.

Comment

The beauty of these cases is that with a change of diet the condition was reversible. Such an expedient is not available to us in a host of end stage autoimmune conditions, nephritis, cardiomyopathy etc.

Nevertheless, I believe it is diet and diet-induced periodontal disease which is the trigger. Assuming this to be so, then we are under a dual obligation.

- To advise and continue to remind our clients of the need for daily raw bones before irreversible disease sets in.
- Conduct controlled studies to elucidate the precise mechanisms.

Feline Eosinophilic Granuloma Complex

No 3271 Tom Lonsdale, Riverstone Veterinary Hospital, Garfield Road, Riverstone, NSW 2765
Tel (02) 627 4011 01.06.92

The severity of the lip and tongue lesions in Ming Hobbs the 7 year old de-sexed female cat cause me to reproduce the Anapath histology report in full.

Microscopic Description

Lip:

The biopsy shows a large ulcer in the skin covered by a thick necrotic crust containing numerous large colonies of bacterial cocci. There are heavy infiltrates of eosinophils throughout the granulating ulcer bed and underlying dermis.

Tongue:

The large yellow nodule is an area of reactive lymphoid follicle formation, interspersed with mixed inflammatory cell infiltrates including numerous eosinophils, mast cells and plasma cells. The smaller lesions show areas of granulating ulceration with extensive eosinophilic inflammation and superficial necrosis and bacterial infection.

Final Anatomic Diagnosis

1. Multifocal severe ulcerative eosinophilic dermatitis and glossitis with superficial bacterial infection.
2. Focal moderate lymphoid hyperplasia with interspersed eosinophilic inflammation, tongue.

Comment

The lesions on the lip and tongue are consistent with eosinophilic granulomas, each with significant

secondary superficial bacterial infection. One of the nodules in the jar labelled "tongue" was an area of lymphoid hyperplasia, probably in response to the chronic inflammation and infection in the mouth. Many cats with eosinophilic granuloma-type lesions have underlying hypersensitivity problems (food allergy, atopy etc.)

The treatment on 28.04.92:

- Debridement of tongue
- Dental overhaul
- Long acting penicillin, Dexamethasone I.M.
- 10 mg Depopred intra-lip lesion
- 5 mg Megestrol Acetate every 2nd day for 2 weeks

The diet was changed to include a raw chicken wing or ox tail or similar every day. At 28.05.92 Ming is thoroughly enjoying the new diet and the mouth lesions are totally healed.

Comment:

Never before have I insisted on a total dietary change nor have I seen such a rapid recovery. It will take me years to accumulate a series of such cases. If other practitioners try this approach we can quickly determine if there is a diet, periodontal disease, eosinophilic granuloma nexus.

Authors' views are not necessarily those of the committee. 'Control & Therapy' series, mailing 168.

Raw Meaty Bones Promote Health

No. ??? Tom Lonsdale, Riverstone Veterinary Hospital, Garfield Road, Riverstone, NSW 2765
Tel: (02) 627-4011 23.7.92

The raw versus processed food debate became obstipated. A stand-off occurred across the philosophical and scientific divide with little new material being exchanged and certainly no movement of personnel between the camps.

The methodological incompatibility of the two factions were as the inhabitants of Lilliput to those of Brobdingnag.

With the emergence of some recent information, the latter day Gulliver can catch a glimpse of the rich new areas of inquiry waiting to be explored.

The Zubrycki silky terriers represent just such a case. From November '85 to August '91, Tuffy and Blossom were presented at the surgery on numerous occasions. Often with vexatious non-specific illness/lethargy/dermatitis.

A recurrent complaint was that Tuffy had attacks of the 'scurries'. Various determined to be hyperventilation or bouts of mad anxiety. Several theories and treatments were proposed by ourselves but to no avail.

On 6/8/91, at time of annual vaccination, it was determined we should be entirely resolute in our dealings. The owners were persuaded to adopt a thorough approach to flea control, and the dogs were booked in for radical dentistry. Previously our advice to give an occasional raw bone had been overlooked. Now we insisted that a raw meaty bone should be a staple of the diet.

The WCC of 12/8/91 were:

	TUFFY	BLOSSOM	Normals
Tot.WBC	5.1	5.2	6.0-14.0
Differential WCC (absolutes)			
Neut.	3.4	4.0	4.1-9.4
Lymph	1.5	0.8	0.9-3.6
Mono.	0.1	0.2	0.2-1.0
Eos.	0.2	0.3	0.1-1.2

Several times, in the intervening weeks, I met Mrs. Zubrycki in the street. Each time she remarked on the lack of 'scurrying' attacks, much improved skin, vitality and breath.

On 17/6/92 she was persuaded to bring the dogs back for follow up and blood test. the results are reprinted below.

	TUFFY	BLOSSOM	Normals
Tot.WBC	8.5	8.2	6.0-14.0
Neut.	4.8	5.9	4.1-9.4
Lymph	2.7	1.7	0.9-3.6
Mono.	0.4	0.4	0.2-1.0
Eos.	0.5	0.2	0.1-1.2

Some gingivitis and tartar accumulation was evident where opposing teeth had been removed, but otherwise the mouth was healthy.

Comment

A number of explanations could be postulated to explain the findings. My rude hunch is that just like the millions of other process food fed dogs, the sequence of events is as follows.

Traumatic gingivitis of teething and plaque-induced gingivitis of normal living becomes exacerbated by calcification of plaque. All of the former remaining unchecked by nature's cleaning, polishing, washing action at feeding sessions.

During the canine evolutionary phase there would have been no pressure to cope with chronic mouth lesions.

The modern dog protected from heat, cold, starvation and predation has to withstand the affront of a mouthful of gram negative bacteria and toxins.

Ill-equipped for the task, the bone marrow suffers toxic suppression and a concomitant bacteraemia compounds the problem. The whole noxious mess occasionally punctuated by dramatic demonstrable disease entities, (septic arthritis, endocardiosis, nephritis). More usually characterised by suboptimal health of an insidious nature running parallel with the ageing process and confused with the same.

THE INTEREST GROUPS

THE PET FOOD INDUSTRY

This is the archetypal monster of the modern technological age. Grown out of a fallacy this oligopoly towers over the pet world. Self-serving 'truths' are then propagated and permeate all levels of western society.

With justifiable pride the nutritional scientists analysed cat and dog diets into their component parts. These are published in a relatively value neutral form in the NRC booklets **NUTRIENT REQUIREMENTS OF DOGS 1985** and **NUTRIENT REQUIREMENTS OF CATS 1986**.

Under the heading **Formulated Diets for Dogs**, the authors write:

"Dogs require specific nutrients, not specific feed stuffs."

Slight surprise is evinced at this silly statement and the authors go on to modify their statements by:

"This fact and the remarkable adaptability of the dog has led to the successful use of commercial diets that differ widely in their ingredient composition."

The fallacy is further preserved when the authors write under **Formulated Diets for Cats**:

"Cats require specific nutrients, not specific feed stuffs."

Perhaps detecting the overwhelming silliness of this they go onto qualify the statement thus.

"Nevertheless, cats are quite individualistic in their feeding behaviour and frequently exhibit food preferences that have been conditioned by previous dietary experience. Conditioned diet preference should not be confused with nutrient requirements. While cats are carnivorous in the wild, satisfactory diets containing significant amounts of vegetable matter have been developed. However, in commercial cat diets a proportion of animal tissue is retained to satisfy specific nutrient requirements e.g. arachidonic acid and taurine, and to improve the acceptability of the diet. Thus, strict vegetarian diets fed alone are not nutritionally ad-

equated for cats, even if such diets are sufficiently palatable to be readily eaten."

The statement represents a double fallacy due to both form and content.

The Form is:

A Dogs and cats require specific nutrients and not

B Specific Feed stuffs to ensure (implied)

C Good Health

we have

A Specific nutrients

C Therefore we have good health

This is important so we shall work through a couple of analogies.

A We have all the necessary building materials and we do not

B Need ready made doors

C In order to obtain a good house

we have

A All the necessary building materials

C Therefore we have a good house

The well worked and parallel example is that of the **Breast Milk Substitute Industry**.

The statement goes something like this:

A Babies require specific nutrients contained in substitute formula and not

we have

B The specific breast milk

C In order to have good health

we have

A Breast milk formula

C Therefore we have good health

The following is abstracted from Patrick Pietroni's excellent work,

"The gradual reinstatement of breast feeding like that of natural birth has resulted from a few pioneering individuals, the rise of consumer organizations and the gradual change in society's perception so that, although 'breast is best' is now more widely accepted, the vested interests in controlling the economics of the product ensure that the battle continues. Nowhere is this more clearly seen than in the baby food industry and Third World nutritional needs. A public outcry and a series of lawsuits against Nestle's widespread

promotion of artificial feeding in Third World countries led to the establishment of a WHO/UNICEF code on the marketing of breast milk substitutes. In summary this code suggests that the following good practice should be observed.

WHO/UNICEF Code

1. No advertising of breast milk substitutes
2. No free samples to mothers.
3. No promotion of products through health care facilities.
4. No company mothercraft nurses to advise mothers.
5. No gifts or personal samples to health workers.
6. No words or pictures idealizing artificial feeding, including pictures of infants, on the labels of the products.
7. Information to health workers should be scientific and factual.
8. All information on artificial feeding, including the labels, should explain the benefits of breast-feeding and the costs and hazards associated with artificial feeding.
9. Unsuitable products, such as sweetened condensed milk, should not be promoted for babies.

It is because the issue of breast feeding versus bottle involves such large profits that the medical and social factors have been marginalised by the economic and political ones.”

CONTENT

Even if the logical form of the foundation statements were correct the premises are false and consequently one cannot derive a true conclusion. Every kid in the street knows that if you tell a lie you cannot later incorporate that lie into a true statement.

Premises are either true or false by definition or by logical deduction from true premises. This paper sets out some of the practical and intellectual absurdities which render the NRC statement false.

Consequences are:

All of this goes to suggest that nature is greater than the sum of its component parts. The technologist has not acknowledged this and fills the can according to the formula handed down. He then almost imperceptibly speaks of “nutritionally complete and balanced diet” as opposed to ‘contains a complete list of nutrients’.

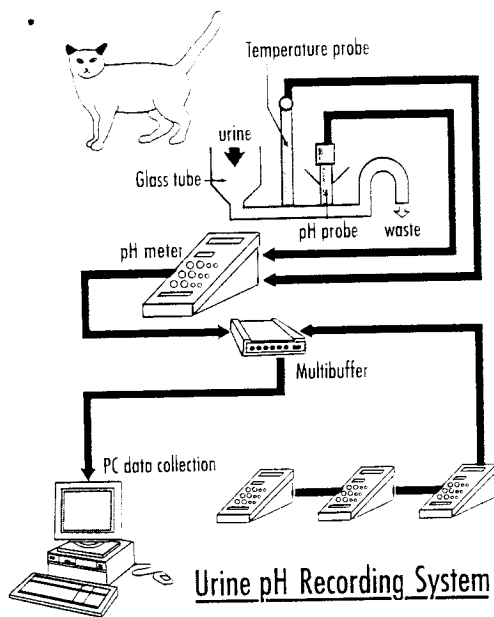
Once in the hands of the ad man this new fangled ‘nutritionally complete’ concoction undergoes a further metamorphosis. If not in word, then by implication, it appears as superior to all alternatives including the natural diet from which it was all modelled.

As self-styled European/World authorities on pet nutrition, the industry pours scorn on any alternative view. Not unlike an occupying force they need to keep the natives happy in the belief that life is better under the colonist.

The example below typifies the policy of telling some of the story. Whilst acknowledging that periodontal disease is a scourge no reference is made to the effects experienced with canned food or natural diet. The paternalistic ‘indications are that progress in this area can be made’.

As a further macabre twist to the ‘tail’ the pet food manufacturers, not content to sell the stuff that causes/maintains the obesity, heart condition, nephritis and ill thrift, have expanded the market further. Now there is another can to counteract the effects of the first can, called obesity diet, cardiac diet, etc.

Bleeding to treat the effects of anaemia slipped from grace. Will the can to treat the can meet a similar fate or will yet another can emerge?



Waltham is devoting considerable resources to research into feline lower urinary tract disease using the non-invasive urine pH monitoring system it has developed.

Waltham has carefully evaluated controlled calorie reduction in companion animals and has found that it does work. The Canine Low Calorie Diet is nutritionally complete and is recommended for gradual weight loss - say 15 per cent over an eight to twelve week period.

Obesity in cats is less common. To date, research indicates that about 9 per cent of cats are overweight. Again a special diet is effective. In the case of the cat, because of its special needs, the nutritional balance of a calorie controlled diet is especially important. The Feline Low Calorie Diet has been developed by Waltham with these needs in mind.

The cat may not be so prone to obesity but it is not without its own particular problems. A major cause for concern is feline lower urinary tract disease. This complex condition continues to defy researchers as to its precise cause but the application of a correct diet has provided some clues as to its management. At the Waltham Centre, nutritionists have developed a non-invasive system for studying urination pattern and urine pH in cats. Work to date to which Waltham has contributed, indicates that dietary measures should address water

turnover, mineral intake and urine pH and has allowed the formulation of a special diet for the condition. Considerable resources are devoted to further understanding of the disease.

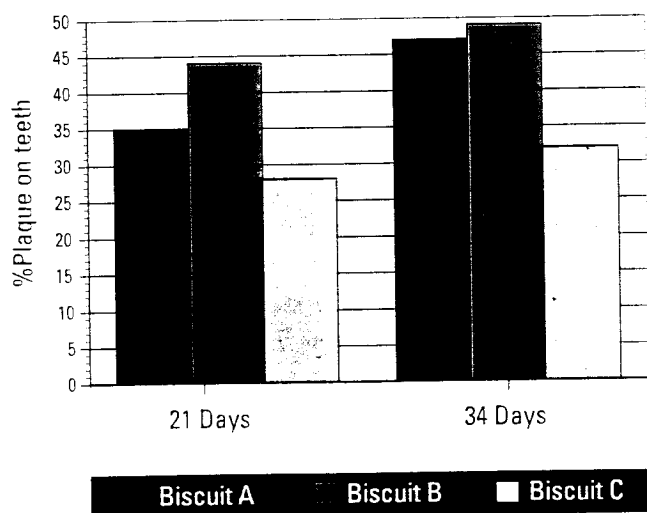
ORAL HEALTH AND HYGIENE

Oral health and hygiene are just as important for the pet dog or cat as they are for their owner. For both

man and dog, plaque is something of a plague. Accumulation of plaque is the major cause of periodontal disease in animals. A large percentage of dogs and cats more than three years old have periodontal disease to a degree that would benefit from treatment. Plaque cannot be rinsed off. It has to be removed mechanically with a toothbrush - not an easy task for dogs and even more difficult for cats.

The desirable alternative is of course to prevent plaque formation. As part of its broad involvement in pet care, Waltham has embarked on a major programme of investigation into the causes and sequelae of periodontal disease and the development of preventive approaches for example oral hygiene biscuits and chews. Early indications are that progress in this area can be made.

Fluorescent-stained plaque



Findings from a study in which the efficiency of 'oral hygiene' biscuits for reducing dental plaque accumulation was evaluated in Labrador.

has been carefully formulated to provide your dog with an appealing, appetising and nutritionally complete food. Your dog will love the bone-shaped pieces, with added marrowbone, giving extra nutrition and eating enjoyment. In at least five different ways with added marrowbone, builds a healthier dog.

1 SOUND BONES & TEETH

supplies the necessary levels of calcium and phosphorus, with all the Vitamin D needed for sound bones and teeth. The simple massaging effect of crunching improves the health of your dog's teeth and gums.

2 ENERGY & FIBRE

The whole grain cereals in provide carbohydrates for energy and stamina and are carefully cooked to improve digestibility, yet retain their goodness. The whole grains include bran to provide a rich source of fibre roughage.

3 HEALTHY SKIN, GLOWING COAT

contains the necessary polyunsaturated vegetable oils needed for your dog's nutritional well-being whilst promoting a healthy skin and glowing coat.

4 STRONG BODIES

Our balanced blend of meat and vegetable proteins in provides for your dog's growth and body-building.

5 PEAK CONDITION

The balanced vitamin content in keeps your dog in peak condition... alert, bright-eyed and with sharp reflexes.

PACKED ON



9 310022 146008





MANUFACTURED IN AUSTRALIA BY

HOW TO FEED YOUR DOG

Dog's daily requirements will vary, but the following can be used as a guide for adult dogs. Increased quantities will be required by very active dogs.

Be sure fresh water is always available.

Size of Dog Amount to Feed

 Pekingese, Aust. Silky Terrier etc.	Toy (to 5kg)	50-100g (1/2-1 cup)
 Corgi, Dachshund, etc	Small (5-10kg)	100-200g (1-2 cups)
 Kelpie, Cocker Spaniel, etc	Medium (10-25kg)	200-400g (2-4 cups)
 Collie, German Shepherd, Labrador etc.	Large (25-50kg)	400-700g (4-7 cups)

If you have any queries on nutrition and feeding or if you are not completely satisfied with this product, please contact us at: Service Department.

Ingredients: Wholegrain cereals; cereal by-products; meat & meat by-products derived from lamb, mutton, beef and chicken; iodised salt; food colourings and antioxidants. contains all the essential vitamins, amino acids and minerals for complete dog nutrition.

Analysis:

Min. % crude protein 15.0 Min. % crude fat 10.0
Max. % crude fibre 5.0 % salt (sodium chloride) .. 1.3

How meet the nutrient levels recommended by the N.R.C.

Nutrients	N.R.C.*		
Fat	g	20	10
Minerals			
- Calcium	mg	1500	1190
- Phosphorus	mg	1000	890
- Potassium	mg	1230	890
Vitamins			
- A	IU	761	750
- D	IU	82	80
- E	IU	5.0	5.0
Linoleic Acid	mg	2040	2000

*National Research Council, Academy of Sciences, USA. *Nutrient Requirements of Dog (1985) based on a 10kg adult dog consuming 200gms per day. meets and in some cases exceeds the levels set down by the N.R.C.

COMPLETE NUTRITION

14600/A/91

Chicken & Turkey



guarantees your cat a delicious and nourishing meal. The wide range of meat and/or fish varieties ensures there is always an exciting taste to satisfy even the most discerning cat.

is a nutritionally complete diet. contains all the essential vitamins and minerals your cat needs for energy and health.

Because's nutritionally complete, there is no need to feed your cat anything else.

In fact, feeding your cat solely on all fresh meat or fish can lead to nutritional imbalances.

varieties are carefully cooked in the can and contain no added preservatives.

By feeding you can be assured that your cat is being properly cared for.

SERVING INSTRUCTIONS.

Your cat will enjoy most when it is served fresh from the can, at room temperature.

Cats regulate their food intake and seldom overeat, so feed as much as your cat wants.

For more information about feeding write to:

Chicken & Turkey



Net
410g

Ingredients: Selected meat obtained from chicken, beef, mutton and turkey; cereal; gel; food colouring; all essential vitamins and minerals. No preservatives added.

NUTRITIONAL ANALYSIS:

MIN	% Crude Protein	7.0
MIN	% Crude Fat	2.5
MAX	% Crude Fibre	1.0
%	Salt (Naturally Occurring)	0.4

Manufactured and packed by

Made in

Distributed in by

is a registered trademark.

1989.



QUALITY INGREDIENTS

Selected wholegrain cereals; meat and by-products from fish; meat and by-products from chicken and beef and/or mutton; sugar; iodized salt; vegetable oil; all essential vitamins and minerals (including vitamins A, D3, E, B1, B2, B6, niacin, calcium, zinc and iron); preservatives; antioxidants. No added colouring.



KITTEN FORMULA

Kitten Formula has been specially prepared for young kittens.

Kitten Formula combines the great taste with the balanced nutrition that every kitten needs to grow up to be healthy and strong.

The unique sealed bag inside this box ensures that the great taste and goodness remains as fresh as the day it was made.

These delicious crunchy pieces aid the proper development of healthy teeth and gums. For very young kittens it can be soaked in warm water to introduce them to solid food.

NUTRITIONALLY COMPLETE

KITTEN FORMULA, is guaranteed to contain 100% complete nutrition for kittens and gestating/lactating cats.

This specially developed recipe offers the extra protein, calcium, vitamins, minerals and the energy growing kittens need in their first year to develop strong muscles and bones.

These unique KITTEN FORMULA kibbles have been carefully designed (through consultation with veterinarians and breeders) for your kitten's small mouth. The light, crunchy kibbles are just what kittens need for healthy teeth and gums.

FEEDING INSTRUCTIONS

Kittens can begin to eat solid food after 4 weeks. From 4 to 9 weeks of age, feed your kitten KITTEN FORMULA moistened with warm water (1 part water to 3 parts kibble).

From 10 to 12 weeks your kitten's teeth will be better developed, so you can gradually reduce the amount of moisture.

When your kitten has reached the end of its first year, gradually introduce as your adult cat food.

FEEDING CHART

approximate daily feeding amount.		
Age	Grams	Cups
1 - 3 months	75 - 92g	3/4 - 1 cup
4 - 6 months	82 - 108g	3/4 - 1 1/4 cups
7 - 8 months	90 - 117g	1 - 1 1/3 cups
9 months - 1 year	80 - 107g	3/4 - 1 1/8 cups



Be sure your cat is provided with WATER when eating

PRACTITIONERS

Some practitioners have promoted health for a while now. The majority have treated disease as a spontaneously occurring entity. Epidemiology of small animal disease has been a minor consideration and germ theory has been uppermost.

VETERINARY DENTISTS

As self appointed experts in oral hygiene, this group bear a heavy responsibility. Where they should have shown a lead they appear to have lost direction. Even the language has been corrupted such that now a six-monthly painful procedure performed under anaesthesia has gained the title 'dental prophylaxis'.

Defamation laws being as they are, I will leave the dentists to speak for themselves.

1. *The first step in the prevention and control of periodontal disease is a complete dental prophylaxis.*

Jean Hawkins AAHA Conf. 1985

2. *The most important area of client education in preventative dentistry is home care.*

Jean Hawkins AAHA Conf 1985

3. *Q. Why not give bones to dogs and cats to control periodontal disease.*

A. Because they do not fit in with the modern American way of life.

Colin E Harvey Dental Seminar 27/7/91

4. *That 'crunching' sound of dry food is music to my ears.*

Dr. Ben Colmery - Charter Fellow
US Academy of Veterinary Dentistry
18/7/92

5. *I help Mother Nature get them (teeth) right out of there.*

Dr. Ben Colmery 18/7/92

6. *In my opinion, bones are bad news.*

Dr. Ben Colmery 18/7/92

7. *The best preventative home dental care includes a nutritionally sound diet in conjunction with regular raw marrow bones (weekly).*

Jeff Brady AVDS

8. *Veterinary dentist Dr. Stephen Coles of Melbourne told the conference that while a bone*

once a week was ideal to prevent oral disease in larger dogs, small dogs with deformed jaws, such as Pekinese needed to have teeth professionally cleaned every year.

Dr. S Coles reported in SMH 12/5/92

9. *Dr. Coles, President of the Australian Veterinary Dentists Society said dogs should chew bones twice a week and cats should chew chicken necks once a week to help prevent dental disease.*

Dr. S Coles reported in Sunday Telegraph
17/5/92

10. *There is material for a masters degree in this area.*

Stephen Coles letter to AVA News June 1992

UNIVERSITIES

Have bought the pet food industry 'complete and balanced' line wholesale.

Students graduate paranoid about causing hyper or hypo problems if other than commercial diets are fed. Sticking to the party line is encouraged at risk of being found negligent.

CONSUMER PROTECTION AND REGULATORY BODIES

The regulators have accepted the assurances of the Pet Food Industry and continued to rely on vague definitions. For instance:

Complete and balanced diet:

"Such a diet contains all the required nutrients at absolute and relative concentrations such that it satisfies the animals tissue requirements for each nutrient." ⁶

Whilst depending heavily on the NRC figures the companies vary them where they see fit.

e.g. "The requirements are recommendations of the Waltham Centre for Pet Nutrition. They differ from NRC recommendations by the incorporation of recent unequivocal research findings (e.g. taurine requirements of the cat) and in the expression of protein and fat requirements to better facilitate their use in practical feeding." ⁶

One pet food manufacturer's commentary on The Role of Prepared Pet foods.

"Whilst pet foods are purchased by pet owners usually at the same time and place as human food they differ radically in that pet foods are expected to support life as complete diets in themselves. The responsibility of the pet food manufacturers is substantial, since dogs and cats have little choice as to what and how they are fed and little nutritional wisdom."⁵

The problem is that no one is enforcing that responsibility.

WELFARE

Nobody told the animal welfare bodies that most domestic pets suffer ill health and painful disease brought about by wrong dietary advice.

ASSOCIATIONS

Imagine the medical associations taking heavy sponsorship from the tobacco industry or doctors journals advertising beer on the basis that it contained calories and B vitamins.

Some multinationals produce breast milk formula and extensive lines in confectionery. Check if they gloat about their success from the pages of the medical journals.

What is the selling line in our journals?

LEGAL POSITION

As to the legalities of the situation, I am not legally qualified but suggest that the following matters may become issues of relevance in the future.

1. Potential claims by pet owners under various pieces of consumer legislation throughout the States and Territories of Australia.
2. In the Federal sphere potential Trade Practices Act claims for false or misleading claims may be made either in relation to advertising or promotional material or labels.
3. The new Truth in Labelling activities instituted by the Federal Government.
4. Potential problems or claims under the recently introduced Product Liability provisions in Part V of the Trade Practices Act.

5. The, as yet, unknown effect of class actions which have been lawful in Australia since the 5th day of March 1992 which may tend to overcome the existing drawbacks to actions brought by individual pet owners, namely the high cost of litigation and claims which may amount to only several hundreds of dollars in relation to an individual pet.

The foregoing relates to potential claims against manufacturers, distributors and possibly even retailers of processed pet food. Query what may be the legal problems of veterinarians who fail to consider the issues in this paper or fail to address those issues in advising pet owners who make known to the veterinarian that they rely wholly and solely on processed pet food to supply their pets' diet. Is it too much to suggest that, as pet owners, in common with everyone else in the community become more litigious, veterinarians may some day share top billing on a Writ?

HUMAN DENTISTS

The Dental Health Education and Research Foundation of the University of Sydney produced *Preventative Periodontics 1974*. They saw fit to quote J.F.K.

"If you are not part of the answer, you are part of the problem."

"The nature of the problem:

Surveys both in Australia and elsewhere show that the prevalence of gingivitis is already high in four-year-old children and increases to become almost universal in young adults. These findings are closely related to poor oral hygiene and the presence of calculus.

As pathology of the investing and supporting structures of the teeth, comprising gingiva, periodontal ligament, cementum and alveolar process, is so common in the adult population, and the nature of its progress so insidious, and so lacking in painful symptoms, it seems to have become accepted as a fact of life by a large proportion of the public. Unfortunately, this attitude is shared by a percentage of the dental profession who regard the progressive breakdown of the periodontium as being determined by heredity or the ageing process, and beyond their control. Terms such as "soft gums", "pyorrhoea" or "gum recession" are still used to describe a variety of

distinct periodontal conditions. Significant bone loss, or eventual loss of teeth, due to periodontal disease is not inevitable in the normal life span, *provided clinical and home care is adequate.*

Negative attitudes expressed by patients regarding the long-term value of dental treatment may affect dentists' attitudes, resulting in reluctance on their part to attempt motivation and education of patients in the home care procedures which are such a vital part of preventing the initiation or progression of periodontal disease. Conversely, time spent in sympathetic reassurance of apparently negative, apathetic or nervous patients, can influence a significant proportion of these people to setting higher goals for their oral health, by accepting the attitudes of a practitioner whom they trust and whose judgement they respect.

Equipment required for the early detection of periodontal disease is nominal, disclosing solutions, mouth mirror, adequate lighting, and a periodontal probe. Anyone without these would have difficulty in practising general dentistry at a competent level. Yet, these tools are not being used routinely to diagnose either early changes or the progressive loss of periodontal attachment occurring unchecked in regular dental patients. Periodontal examination and diagnosis still continues to be over shadowed by the spectre of dental caries. Only increased awareness by general practitioners who have the ability to recognize the need for treatment will rectify this situation."

WHAT THE INTEREST GROUPS OUGHT TO DO

"Doctor heal thyself."

Straight away a reappraisal is called for. Merely desisting from the old harmful ways is not enough. The old culture that entraps us all must be replaced. Just as with any revolutionary upheaval there are psychological and cultural barriers to be overcome.

The psychologists tell us there is no sense in waiting for attitude changes, but to adopt the change and the attitude will follow on. Try forcing a smile when you feel low and your spirits will rise. Trying to think yourself out of the doldrums frequently causes deeper depression.

PET FOOD INDUSTRY

So much would be obtained if the manufacturers changed their advertising and label claims. Notes of caution could be printed on the packet e.g.

Caution: A constant diet of soft mushy food will predispose to periodontal disease.

Caution: Exclusive feeding of this food will require you to adequately brush your cat's teeth every day.

Caution: Diseased gums can lead to serious health consequences – give raw meaty bones/apples/carrots daily.

You may prefer to brush the gums daily. Your veterinarian will advise.

Caution: Your pet evolved to eat natural food. This exercises lips, teeth, gums and tongue. Please use this food as a convenient stand-by only.

PRACTITIONERS

Above all protect yourself. Stop advising exclusively all in one processed food. The public are entitled to expect advice sophisticated enough to encompass prevention of deficiency diseases and also control gingivitis.

There is so much scope for practical prophylaxis. We charge big \$'s to vaccinate against non-existent diseases and de-worm for mostly harmless parasites.

As a minimum we should provide a diet sheet which details a convenient cost effective diet that not only ensures a balance of nutrients but also protects against the real, ever present, potential periodontal disease.

At every checkup confirm that dietary advice is being followed. Mention the need for diet to enhance the immune system (key to health) as opposed to being an intractable stressor.

Stocking the freezer with chicken wings and raw meaty bones would be a good start. By this means, you will establish contact with butchers who can supply your clients.

Encouraging some aged cats and dogs to rediscover the benefits of raw bones can be an arduous task. Stick at it.

Clients will be delighted with your new commitment to health. Most will want to tell their friends.

Some will need your assistance to mount a legal challenge to the company who sold the 'exclusive' diet.

VETERINARY DENTISTS

By all means do 'prophylactics' on diseased mouths.

Ensure meaty raw bones are part of the daily diet.

Preface all remarks with the statement that the benefits of raw bones far outweigh the infrequent problems and should be started as soon as the animal can chew at 3 – 4 weeks of age.

UNIVERSITIES

Ensure students graduate with a holistic understanding of the needs of their patients, clients, society at large and the environment they occupy.

Avoid beating a path down the road that leads to a 'tyranny of excellence' unrelated to the immediate issues.

As Prince Charles said 'the whole imposing edifice of modern medicine for all its breathtaking success is like the celebrated tower of Pisa, slightly off balance.'

CONSUMER PROTECTION

Something needs to be done.

ANIMAL WELFARE AGENCIES

So much real work to be done.

Dr. Duncan K. Hall, spokesman for the pet food industry, in his letter to AVA News March 1992, acknowledges the connection between this distressing disease and diet.

"The pet food industry currently commits considerable financial resources towards researching pet nutrition and product development. An example of this research is the work at the Waltham Centre for Pet Nutrition where a technique for staining and objectively grading plaque development in dogs is now being used to examine the effect of different food textures on canine dental health.

The ultimate aim of such research is to develop products which can assist in preventing the development of this complex and sometimes distressing disease."

RESEARCH

There are so many research projects in this area – most could lead to a PhD.

ASSOCIATIONS

'The participants in the environmental section of the Pan Pacific Conference Sydney 1991 affirm that the conference represents a significant initiative in the area of raising awareness of the environmental responsibilities of the veterinary profession.

Environmental considerations are shaping the choices made by our consumers and are playing an increasing part in shaping the research and teaching efforts of our profession.

These trends are revolutionary, accelerating and represent beneficial developments for consumers, the environment and the profession, which exists to serve society.'

With such fine words the associations should be careful not to endorse products which impose such a burden on the health of our animals, on the economy and on the environment.

WHAT TO EXPECT

Once the revolution in our thinking gets under way we can expect a general increase in our understanding of the subtle interaction of diet, health, economy etc. Just the exercise in public debate will be a worthwhile exercise. Doubtless truth will receive a battering but overall the public will lose suspicion and the profession will gain respect.

Of course there will be innumerable interrelated health benefits.

After a initial upsurge there will be a likely tailing off of veterinary incomes.

Processed pet food should be replaced by the much cheaper meaty bones and table scraps.

Consumers will need less money to spend on animal food and veterinary bills.

The Environment will benefit from less needless processing, transport and packaging. Table scraps will feed the pets instead of fill the garbage tip. The offal mountain can be converted into stock feed and fertiliser and return to the soil.

EPILOGUE

From a close up perspective this heralds a fascinating period. To be part of the hurley burley of jostling ideas is great fun.

I wonder how history will treat the current period? Whether vested interests will be judged to have knowingly exploited pets and their owners? Whether an inadvertent blunder led to the mass indirect poisoning of millions of animals? Whether disease is the price you pay for convenience? Or something entirely different?

REFERENCES PROVIDING INSPIRATION OR FACTS

- 1 LOVELOCK, J.
GAIA – A New Look at Life on Earth,
OUP 1979
- 2 GLEICK, J.
Chaos, Making A New Science. Cardinal
1987
- 3 PIETRONI, P.
The Greening of Medicine. Gollancz 1991
- 4 EDNEY. ATB Editor
The Waltham Book of Dog and Cat Nutri-
tion
2nd Edition. Pergamon Press 1988
- 5 UNCLE BEN'S of AUSTRALIA
Feeding the Dog and Cat
- 6 UNCLE BEN'S of AUSTRALIA
Feeding the Dog and Cat 1990
- 7 ALTMAN, E.G. and WENDON, K.H.
Preventative Periodontics 1974
Dental Health Education and Research
Foundation
University of Sydney
- 8 VETERINARY DENTISTRY 1990
AVDS
PROCEEDING OF THE FIRST AN-
NUAL CONFERENCE MELBOURNE
PGCVS
University of Sydney
Proc No 145
- 9 DENTAL SEMINAR
AVDS
JULY 1991
PGCVS
UNI SYD
Proc No 169
- 10 WALTHAM WORLD AUTHORITY ON
PET CARE AND NUTRITION
- 11 WALTHAM INTERNATIONAL FOCUS
VOL 1 No 3 1991
- 12 KLENK, V.
Understanding Symbolic Logic
2nd Edition
Prentice Hall
- 13 BILLINGHURST I
Canine Nutrition – A Point of View
Sydney University
PGCVS
Nutrition Conference 1988
- 14 NUTRIENT REQUIREMENTS OF
DOGS
1985
NRC
National Academy Press
- 15 NUTRIENT REQUIREMENTS OF CATS
1986
NRC
National Academy Press
- 16 BAWDEN, R.
AGPACK SU-141
Sustainable Agriculture – Hawkesbury's
Position
University of Western Sydney
- 17 PACK TRIES NEW TRICKS BUT PAL
REMAINS TOP DOG
Business Review Weekly – April 5 1991

Oral Disease in Cats and Dogs

No. 3128 Tom Lonsdale, Riverstone Veterinary Hospital, Garfield Road, Riverstone, NSW 2765

Tel: (02) 627 4011 29.08.91

The stench of stale blood, dung and pus emanating from the mouths of so many of my patients has finally provoked this eruption of dissent.

The sheer numbers passing through the practice, when extrapolated to the world situation, tells me that oral disease is the source of the greatest intractable pain and discomfort experienced by our companion animals.

This is a great and mindless cruelty we visit upon our animals from the whelping box to the grave. Just imagine having a mouth ulcer or toothache for a lifetime.

The internal factors are these:

Puppies and kittens cut their deciduous teeth between 2 and 6 weeks of age. An inevitable consequence of this is gingivitis. A diet of processed food ensures lack of gum massage and the gingivitis persists. The growing animal develops grooming behaviour and adds hair and faecal materials to the accumulated food scraps clogging the interdental spaces.

Between four and six months of age the permanent teeth erupt into a soup of blood, pus and saliva. The gingivitis is now well established and not infrequently one finds a young kitten or puppy with a complete set of deciduous teeth hanging from inflamed gingival shreds.

Even on a diet of processed food the deciduous teeth must eventually fall out. The permanent teeth come to occupy a diseased mouth and by this time the animal has learned not to chew on anything because of the pain involved.

The exquisite mechanism of teeth and gums, designed by nature to be cleaned, massaged and stressed daily, is left to rot. Compare mining machinery properly maintained which can excavate a mountain but by disuse can be rendered useless.

A lifetime of inescapable pain is bad enough. The sequelae of endocarditis, iliac thrombosis, nephritis and all those other entities attributable to a permanent septic focus finally condemn this situation as being intolerable.

The external factors are these:

Foremost are the pet foods which are promoted as "complete diets only water needed". Along with petroleum and coffee, pet food is one of the biggest industries world wide.

Reacting to the now universal dental needs of our animals the dental instrument, the dental machine and even the imitation bone industries have flourished.

I believe many veterinary practitioners have reacted passively, perhaps providing some dental care as an after thought and virtually no advice. Since cats and dogs don't complain, owners don't realize and don't seek advice. Many vets just don't seem to be pro-active in this vital area.

As vets we need to provide more than palliative care. Brushing teeth and regular prophys are not enough when advice on diet and food to massage the gums is so vitally important.

What's to be done?

a. The internal system

Simple, give our cats and dogs their basic rights of a healthy functioning mouth. Supply raw chicken wings, chicken necks or oxtail to young/small kittens and puppies when they most want to chew and explore.

Help them to control their two bouts of physiological gingivitis before it becomes pathological. Older larger dogs need raw bones and cats need raw meat on the bone.

b. The external system

The external commerce driven system did not exist before the 50's and now it seems such an inescapable part of life. It may take a while to alter course.

The profession can do much to re-educate itself and in turn the public. A few practice surveys and university based research projects would set the tone.

The pet food manufacturers will need advice on the problems caused by processed food. One pet food company gives bi-annual "prophys" to its research animals. (personal communication)

However, they may be persuaded to voluntarily print cautionary advice on their packaging.

What benefits can we expect?

Innumerable. Pets will be fed on cheap unprocessed bi-products some of the time. The environment will benefit, clients will be an average \$1000 per animal/per lifetime better off. Certainly the pets can be expected to live longer as they enjoy their lives seeking to "steal bones out of the freezer".

As vets we will be happy to see more pain free, healthier pets and grateful owners.

Tom Lonsdale and Associates

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21 Lalor Road
Quakers Hill NSW 2763
Phone: (02) 837-1164

Diet is the Cornerstone of Good Health

The article overleaf was written to alert the veterinary profession to some of the dangers encountered by feeding processed pet food.

Dingoes and feral cats keep themselves healthy by eating whole carcasses. The closer you come to this ideal for pet dog or cat the better. The recommendations provided are proving to be economical and practical for most people. The pets fed this diet glow with health as compared with the processed food-fed majority.

It is simple, it is cheap, and they enjoy it.

Dogs

1. Fresh water constantly available
2. Raw meaty bones/chicken wings/whole fish/rabbit or similar should form the bulk of the diet
3. Table scraps both cooked and raw (discard cooked bones)
4. As the last resort convenience processed 'all in one' dry foods.

Cats

1. Fresh water constantly available
2. Raw meaty bones/chicken wings/quail/rabbit legs/whole fish or similar should form the bulk of the diet
3. Table scraps both cooked and raw (grate vegies, discard cooked bones)
4. As the last resort convenience processed canned food.

Puppies and kittens can be fed basically the same way – just mash or grate their food and feed little and often. Soon they will be gnawing and chewing.

Adult dogs and cats benefit from one day of fasting each week. Old dogs and cats addicted to a laxative diet may experience initial difficulty when changed onto a natural diet.

Create variety. Any nutrients fed to excess can be harmful.

Avoid:

Small pieces of bone - can be swallowed whole and get stuck.

Milk – Associated with diarrhoea. Animals drink it whether thirsty or not and consequently get fat. Milk sludge sticks to teeth and gums.

Exclusively lean meat – Not balanced.

Exclusively vegetable – Not balanced.

Cooked bones – Get stuck.

Mineral & vitamin additives – Create imbalance.

Processed food – Can create dental and other diseases.

There are no prizes for the fattest dog on the block nor the fastest. Feed pets for a lifetime of health. **Prevention is better than cure.**

IMPORTANT: Please note that individual animals and circumstances may vary. We are always happy to discuss your specific needs.

