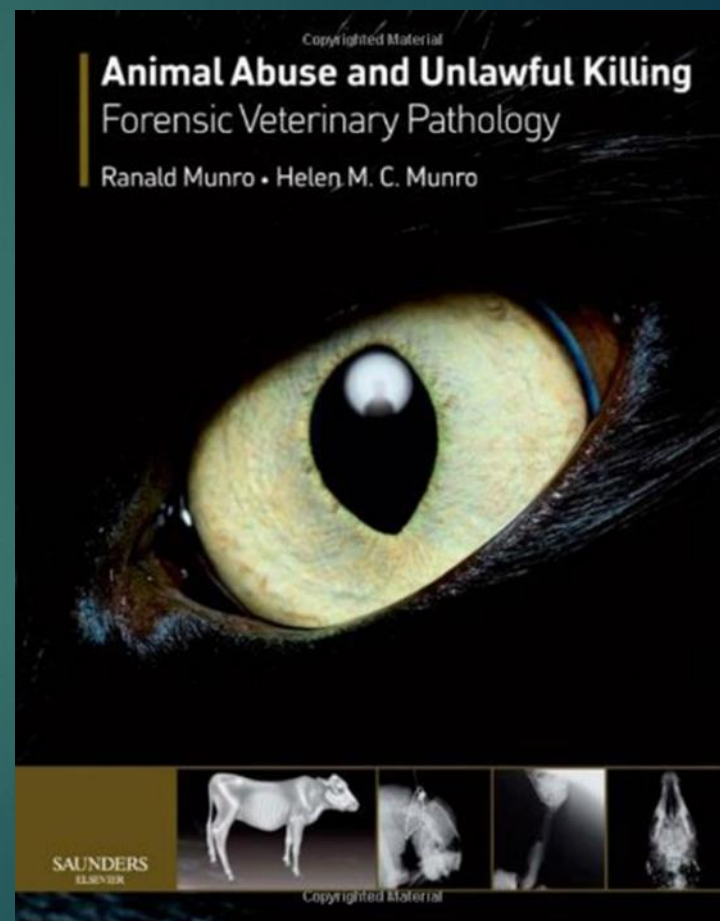


病理獸醫師處理動保案件經驗分享— 簡介基礎獸醫法醫學

- ▶ 中興大學獸醫病理所
- ▶ 退休/兼任副教授 林正忠



導論-獸醫法醫病理師的職責

- ▶ **Forensic veterinary pathology** is defined as the application of knowledge of veterinary pathology to the elucidation of evidence for the **Courts**.以獸醫病理學的知識去闡明法庭上能用的證據
- ▶ In other words, the purpose of conducting a forensic examination is:
 - ▶ (a) to discover and record any **injury, disease or abnormality**,發現並記錄 傷痕 疾病與異常
 - ▶ (b) to interpret these findings in a manner that allows a Court of Law to understand the **cause(s)** and **significance** of any changes.解析引致所見現象之成因與重要性以供法律判定罪責

受虐與施虐的暴力循環(犯罪心理學)

- ▶ A correlation between animal abuse, family violence and other forms of community violence has been established. Child and animal protection professionals have recognized this link, noting that abuse of both children and animals is connected in a self-perpetuating cycle of violence. When animals in a home are abused or neglected, it is a warning sign that others in the household may not be safe.

▶ American Humane Association

自己受虐後會再虐待其他人 虐待動物也會虐待人

- ▶ 動物受虐及家庭暴力和其他形式的社區暴力間的關係已經確定。
- ▶ 兒童保護和動物保護專業人員已經確認此一相關性，指出虐待兒童和動物在暴力循環出現於自我-永存間出現（即受虐後會再虐待他人 循環出現）。
- ▶ 當家中的動物被虐待或遺棄（忽視）時，這是一個警訊，家裡的其他人可能不安全。*引自美國人道協會
- ▶ 獸醫法醫學的終極目的——
預防犯罪或提早阻止憾事發生
- ▶ 多數家庭暴力事件最早的受害者——寵物（替罪羔羊）

英國獸醫法醫病理學教授 羅納德 門羅



VETS AGAINST HUNTING

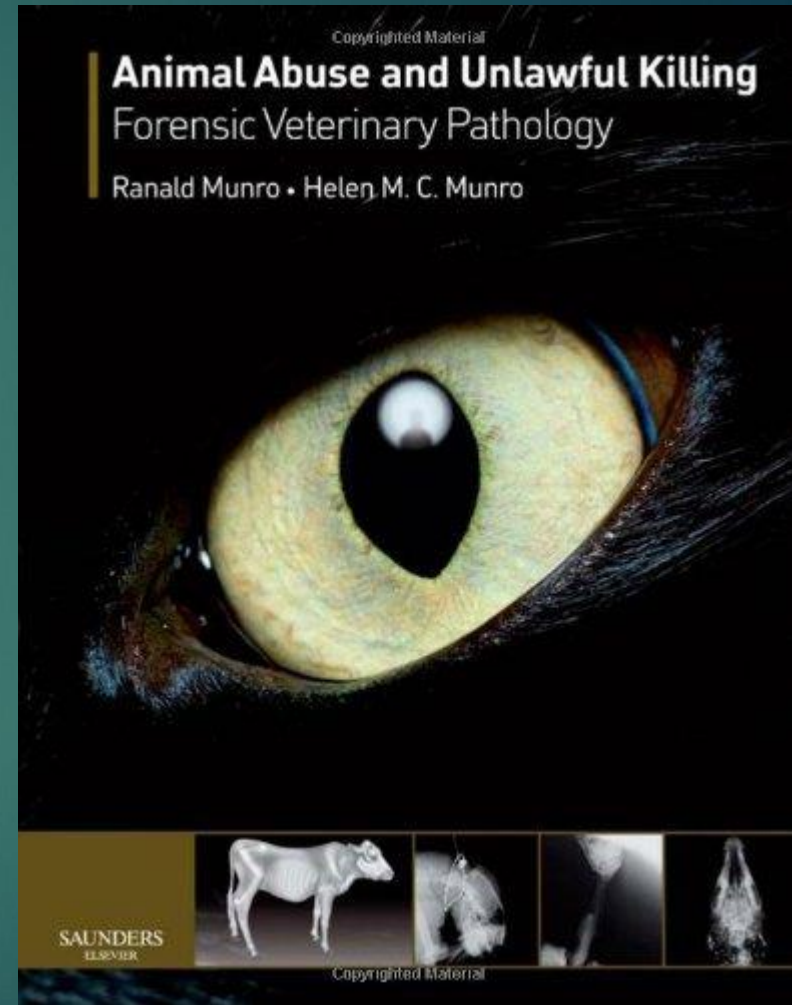
“Post mortem examinations of hunted foxes highlight the barbarity of fox hunting. The proponents of fox hunting claim that the fox dies quickly following a well-judged bite, by the lead hound, and a shake of the neck. This is a myth. The reality is that the fox is seized by the hind legs, or over the back, and then dies as he is ripped to pieces by the hounds.”

Professor Ranald Munro
BVMS, MSc, DVM, Dip Forensic Med, MRCVS

Honorary Professor of Forensic Veterinary Pathology at the RVC
Honorary Fellow at the R(D)SVS
Chair of the Independent Expert Panel on the Badger Culling Pilots

KEEP CRUELTY HISTORY **LEAGUE AGAINST CRUEL SPORTS**

www.league.org.uk/savetheact



Shelter Medicine for Veterinarians and Staff

Second Edition

Edited by Lila Miller and Stephen Zawistowski



Veterinary Forensics

Second Edition

Animal Cruelty Investigations

Melinda Merck, DVM



獸醫法醫病理學概論



1. 獸醫法醫定位—以台灣之法律為例-獸醫師法、動物保護法與民法為使用界定 有文化與法律上 極大不同
2. 獸醫病理學與屍體解剖於獸醫法醫學之應用—僅討論實驗室之部分forensic pathology，不論及採證與forensic science鑑識科學
3. 死亡原因之判定(法律與醫學)—**MOD (Manners Of Death)**
COD (Causes Of Death 病理醫師的死因診斷)
 - ▶ 甲、**人類之MOD**：Natural Causes自然死；Homicide人為(他為)；Accidental Death意外死；Suicide自殺。
動物之MOD：Natural Causes自然死；Homicide人為；Accidental Death意外死；Undetermined未確定。
 - ▶ 乙、最常見之人為動物死亡：肉用家畜屠宰與性別篩選
 - A. 車禍與路殺 Road kill (hit by car; HBC) 是意外或人為
 - B. 棄養、忽視與疏於照顧 Ignore
 - C. 虐待 Abuse (含沒有餵食)

受害者(死亡動物)之鑑定

- ▶ 標準品庫—美國佛羅里達法醫中心(邁阿密CSI)—象牙 犀角 熊膽等中藥材 珍稀動物毛皮 羽毛(《IUCN 紅色名錄》物種瀕危動物)
- ▶ RFLP (PCR)
- ▶ 台東地檢署 - 原住民家中冷凍無毛大鳥
疑似大冠鷲(0.4-1.8公斤)或熊鷹
(農業部生物多樣性研究所 特生)

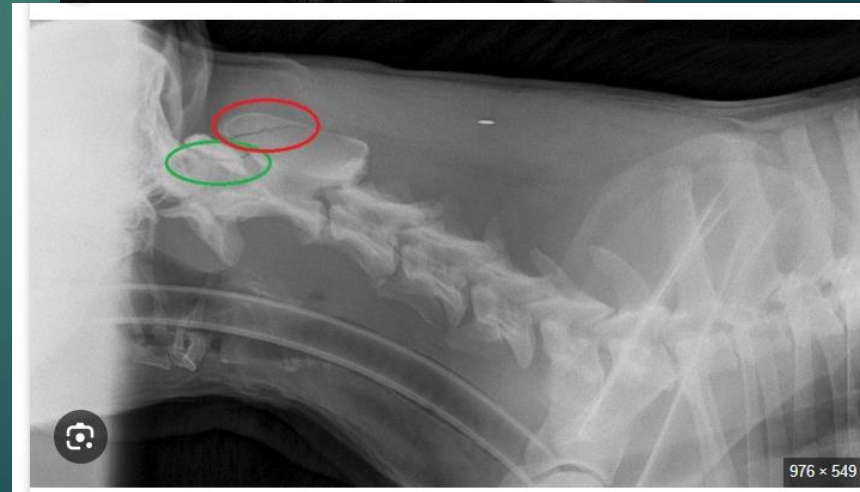
獸醫法醫解剖常需使用設備 或器械

- ▶ 放射線檢驗(X-ray ,CT, MRI皆可) 檢驗所
- ▶ 血液生化檢驗 (肝腎功能檢驗 ALT, AST, BUN, 心肌酵素(CK-MB、Troponin-I)與腹水或血液之比重)檢驗所
大血管(尤其下腔靜脈)凝血塊切塊後可離心分離血清
- ▶ 磅秤、量筒(杯)與湯匙(空針筒不好用)
- ▶ 鬥狗-比特犬於重度訓練過程(機車牽行跑步)中死亡 —
肺水腫 全身多處新舊創面與縫合線→長期大失血後之
極度貧血(黏膜極度蒼白，脾臟萎縮)
鋸骨取骨髓 (髓外造血)

狗HBC左圖前肢尺橈骨骨折

中圖胸壁多肋骨折與皮下氣腫

右圖鼻骨 下顎 骨折



第一頸椎脫臼
與背突骨裂

放射線影像或外觀照有時比解剖圖更具有證據效果



貓遭弓箭射入胸腹腔
引致氣胸與橫膈破裂肝
赫爾尼亞

橡皮筋勒頸



農業部宣導

行政院農業委員會
COUNCIL OF AGRICULTURE, EXECUTIVE YUAN

必須要知道的

6種動物虐傷行為

請勿傷害動物，以下行為皆違反動物保護法！



1 交通工具拖行



2 射殺



3 毒餌/釘子/毒肉塊



4 長期關籠/長期鍊繩



5 獸鉗/陷阱



6 毆打傷害

發現有人不當對待動物，應於第一時間通報警察，或動保處動物救援專線。

病理檢驗/法醫檢驗差異技巧

- ▶ 物種/年齡/性別/品種/毛色判定 正確性
- ▶ 剃毛與剝皮觀察 / 瘀傷/鈍傷 傷口形狀與數量
照相(用環形閃光燈) 附比例尺(加色表卡)
- ▶ 紙袋盛裝檢體與屍體/不要冷凍
- ▶ 病理檢驗/法醫檢驗 報告撰寫 MOD /COD
- ▶ 死亡時間—屍溫、屍斑與屍僵判定(隨物種、
天氣與屍體位置而劇烈變化
容易出錯)
- ▶ 尋求其他領域專家協助
法醫昆蟲學





問診技巧—

病理問診(大都**相信**)

法醫病理問診(大都**懷疑**)

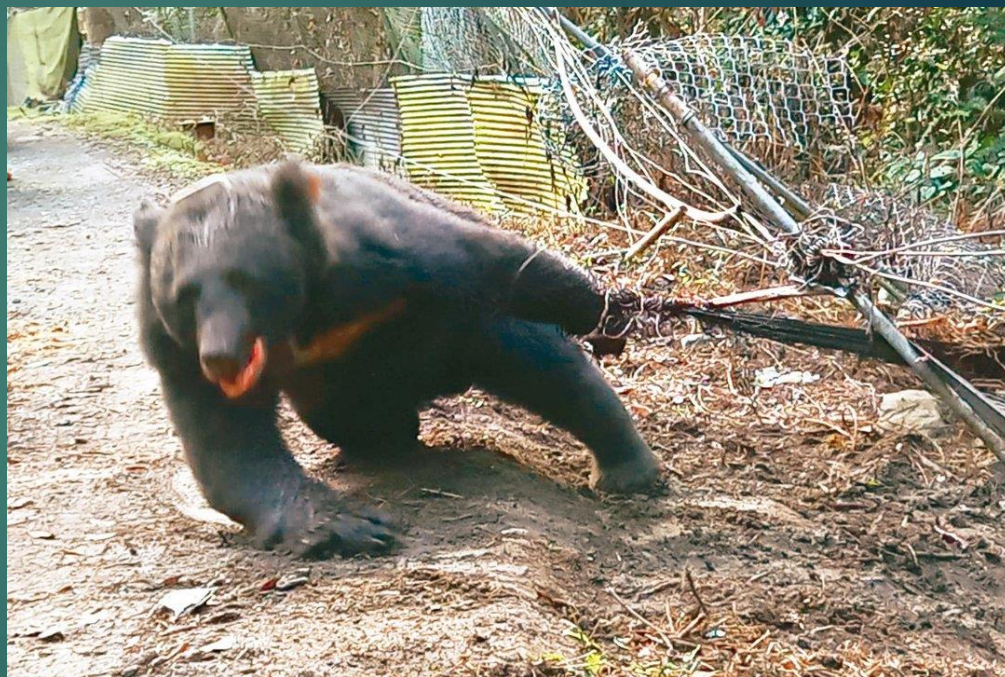
- ▶ 最可能的加害者—畜主
- ▶ 問診時的結果時序、內容與再現性(再問其他人)
- ▶ **醫療糾紛**時—常見且不易釐清
- ▶ 有無餵藥 劑量與飲食
- ▶ 病史正確性—尤其第一次問診的答案
(**案重初供—小心翻供與自行聯想**)

恐怖又危險的 捕獸夾 違法已 禁用



山豬吊 危害所有有腳的中型 哺乳動物(包括人)——違法

16



一隻台灣黑熊2020-10-01在台中和平山區果園誤中陷阱「山豬吊」，受困6小時獲救

彰化縣社頭鄉八卦山區發生，一頭誤入陷阱的水鹿左後腳被鋼索套住

17





MOD
/COM

蘋果即時

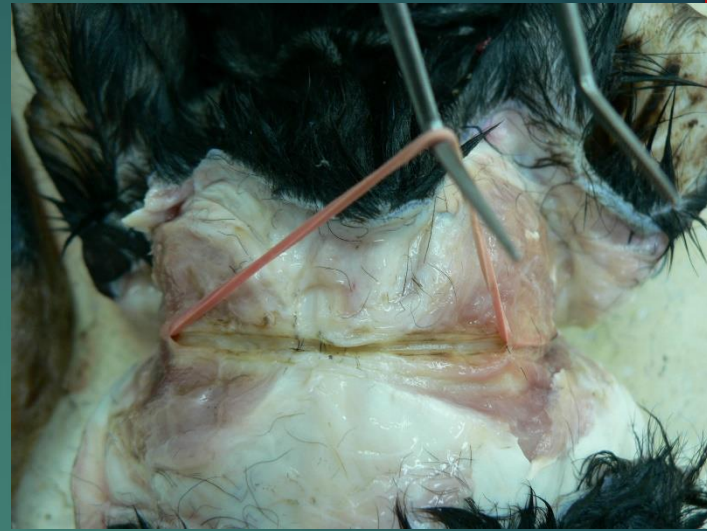
善意致死-1

便當狗/氣球狗事件



成犬(流浪犬)
無吠叫聲
長期無法進食
極度飢餓
可以飲水
已3周輸液治療





便當狗=橡皮筋狗或汽球狗

22



引自 蘋果日報網路新聞



大型犬可能會套到嘴。



小型犬可能會套到脖子。

狗狗沒有辦法自行取下，長時間置之不理，導致傷口潰爛發炎，甚至可能送命。

善意致死-2



不要急著抱狗狗

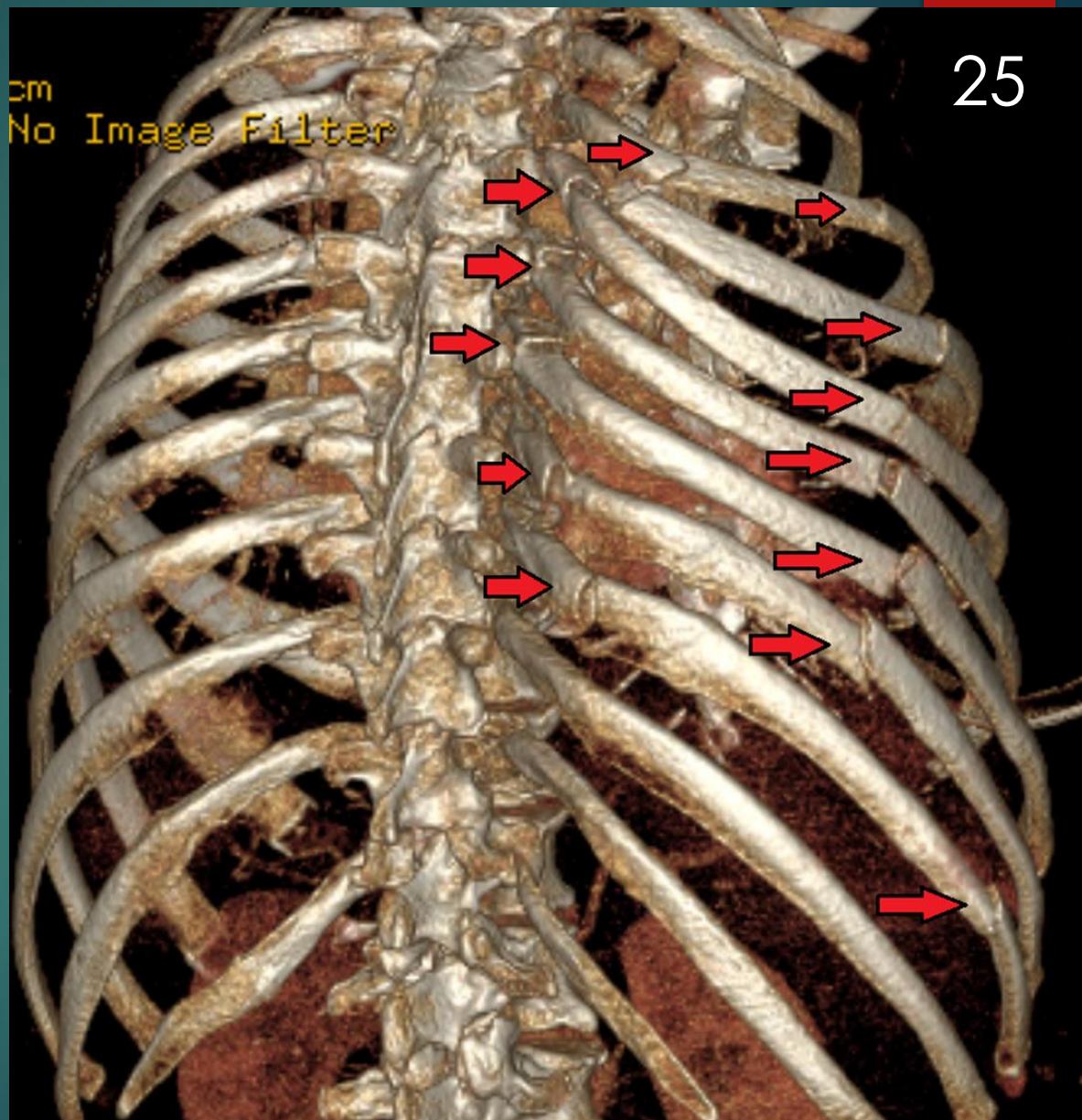
有許多小朋友願意親近狗狗，
可是若是太熱情直接擁抱
狗兒可要注意！因為在狗狗世
界裡，擁抱就像「被壓制」，有
被要求要「服從」的意味。



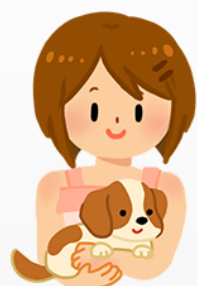
加上擁抱時小孩會和狗狗
貼太近，因此當狗狗忍無可忍而
攻擊時會非常危險！

錯誤抱狗
方式：

婦女將
小型犬
夾在腋下
(習慣及
皮包方式)



正確的抱狗狗姿勢－ 汪汪安心無負擔



小型犬與中型犬
的抱法

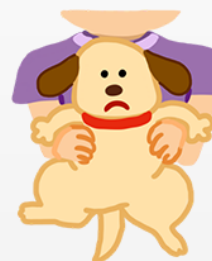
大型犬的抱法



正確的姿勢

避免錯誤抱法

四腳朝天



雙腳懸空

常見的錯誤

這樣抱容易受傷!!



嬰兒抱



站立時
抱起



趴抱



扶著腰
移動



HAPET
www.hapet.com.tw

HAPET

狗與貓的衝突

- ▶ 無主貓狗
- ▶ 狗有主 貓無主
- ▶ 狗無主 貓有主
- ▶ 狗貓均有主
- ▶ 狗貓主人因而打架或殺人→
受虐與施虐的暴力循環(犯罪心理學)

飛機貨艙內兩支法國鬥牛犬 口鼻大量含泡沫分泌液 猝死

- ▶ 心肺衰竭
- ▶ 先天性C型氣管軟骨環 畸形
- ▶ 窒息
- ▶ 熱衰竭/脫水

誤入牠籠的小狗

犬（學名：*Canis lupus familiaris*），通稱狗，一種常見的犬科哺乳動物，在生物學分類上是灰狼（*Canis lupus*）的一個亞種。狗是人類最早馴化的一個物種。

為領域性/社群性/認知位階 有服從觀念之肉食目動物





黃金獵犬

打鬥 後軀被咬傷

下行性 蜂窩組織炎→敗血→
死亡





2

The dog struck by the speeding vehicle miraculously **survived** after becoming stuck in the bumper

Part 1 introduction



DOG HIT BY CAR AND LEFT TO DIE IN ROAD

33



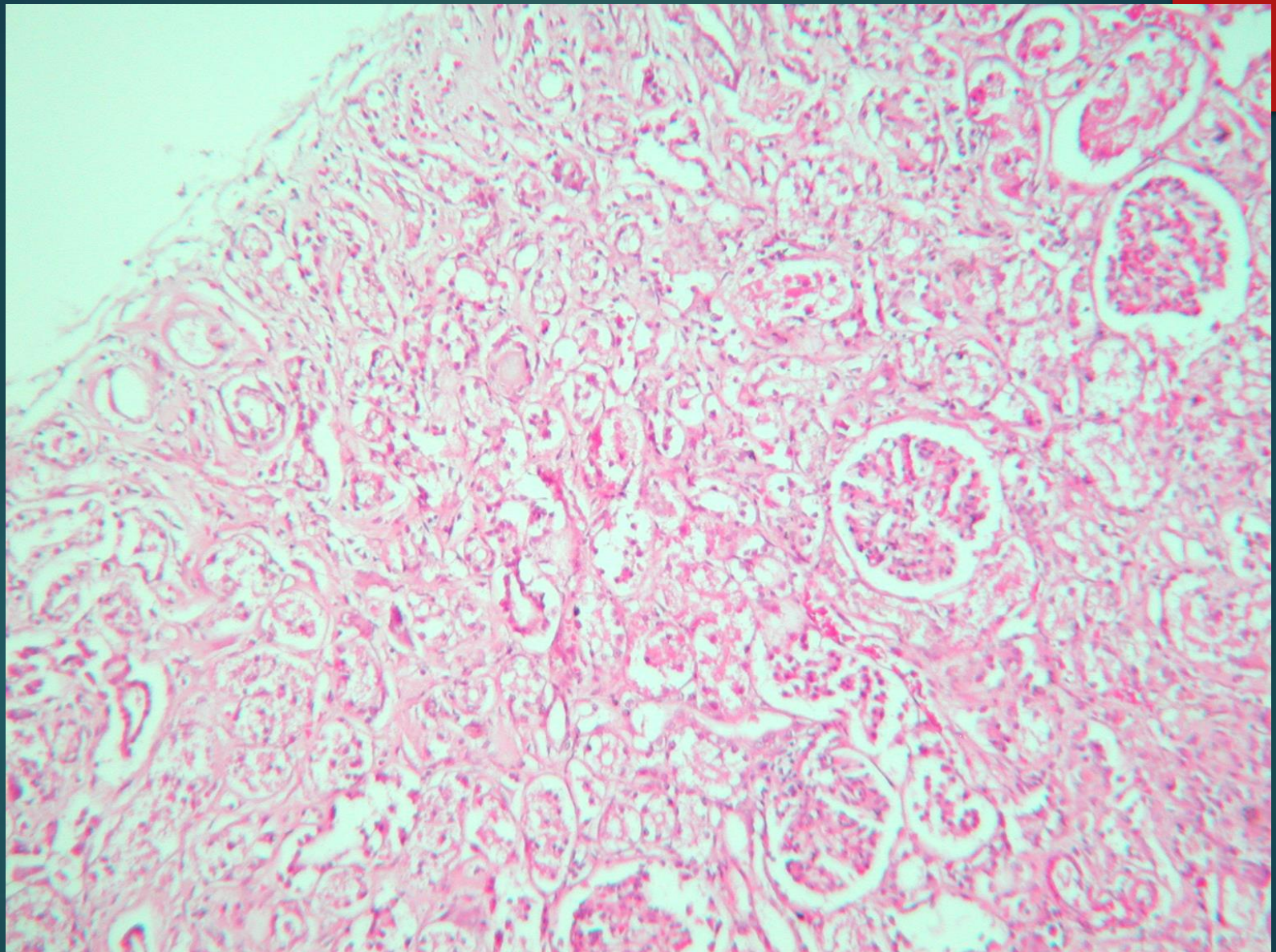
<http://greeceexposed.com/2013/12/05/hit-by-car-then-left-in-the-road-to-die/>

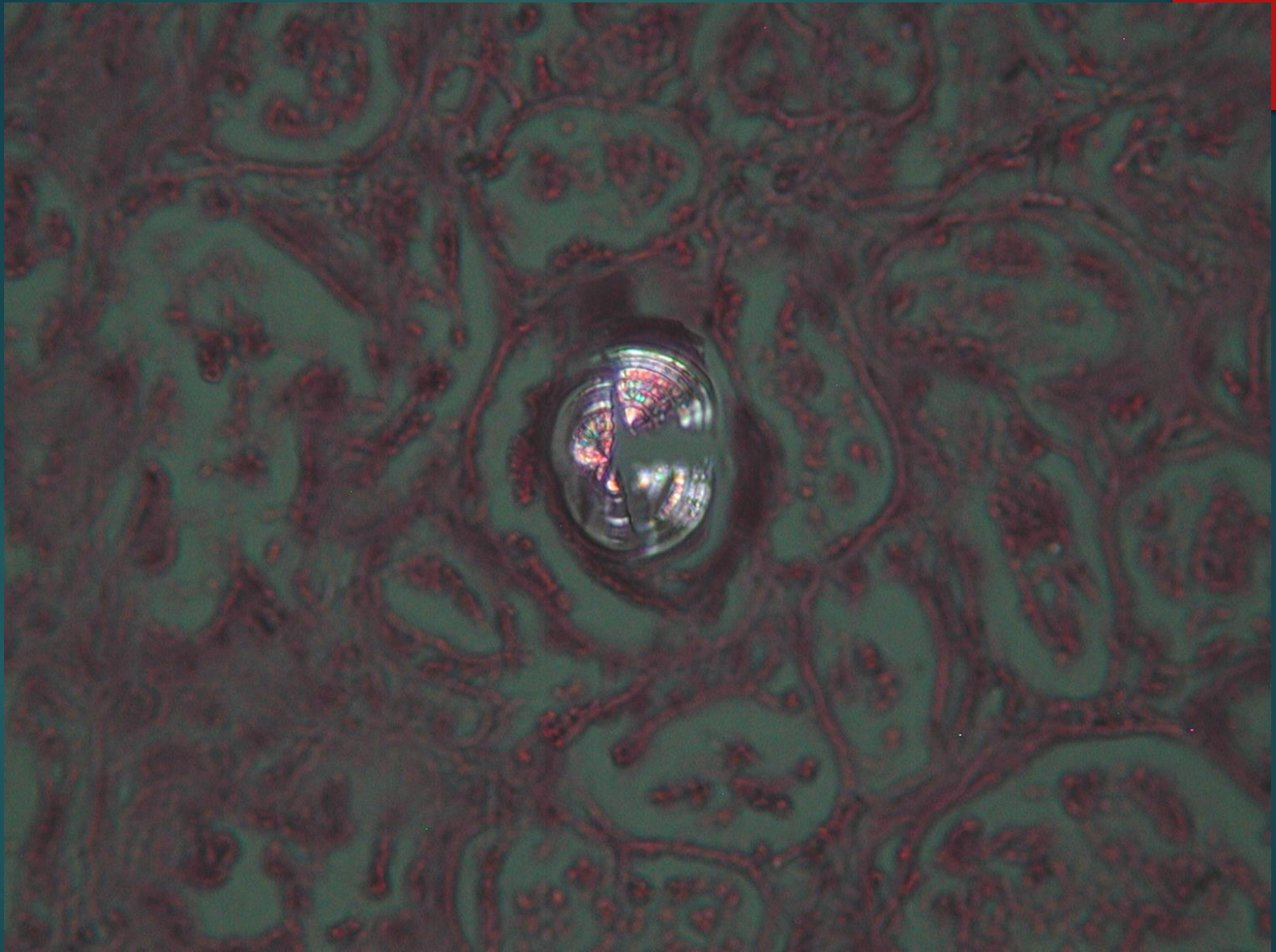


綠結石事件在台灣

- ▶ 2003底-2004初開始發生(2-4月)更多
- ▶ 桃園張聰明獸醫師先發現/全國各地獸醫師反應許多犬隻急性腎衰竭/尿毒症。
- ▶ BUN, Creatinine 極度升高, 寡尿 (部分有尿中出現不明結晶/非已知之結石種類)
- ▶ 共通點: 吃相同品牌飼料(乾狗糧較多/罐頭亦有)/吃其他廠牌與人類食物之同住犬隻則為健康對照
- ▶ 自行解剖: 發現腎盂或輸尿管有綠色結石







BIRGIT PUSCHNER, DVM, PhD, DABVT

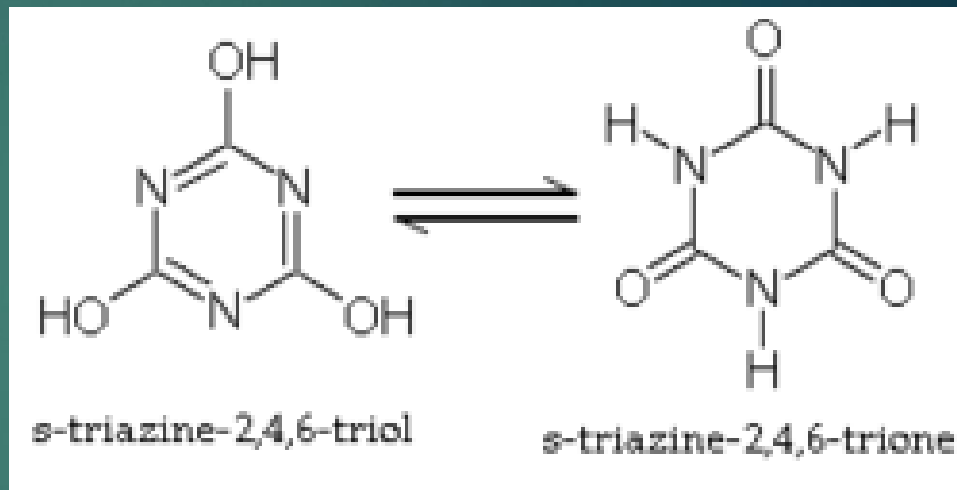
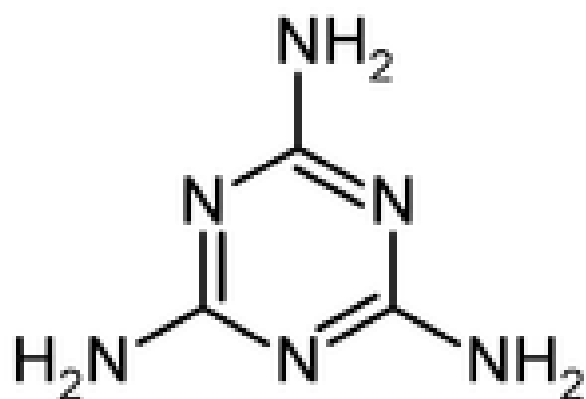
- ▶ Professor and Dean Emerita
- ▶ Professor Emerita
University of California
Davis
- ▶ Pathobiology and
Diagnostic Investigation



三聚氰胺與三聚氰酸

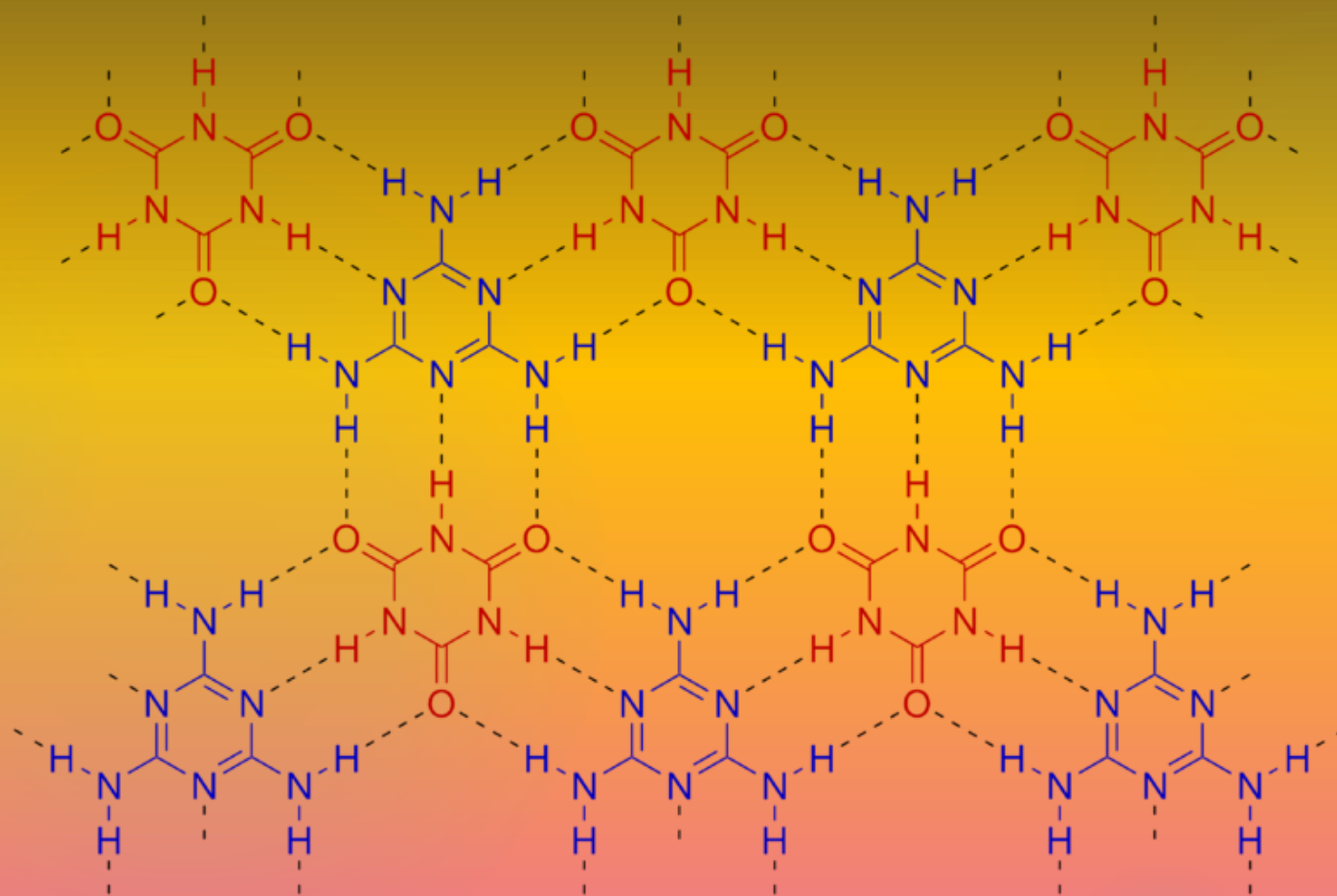
- ▶ 三聚氰胺本身為低毒性，一般成年人身體會排出大部分的三聚氰胺，不過如果與三聚氰酸並用，會形成無法溶解的氰尿酸三聚氰胺，造成嚴重的腎結石。

三聚氰胺與三聚氰酸



Melamine → 生產合成時的不良品
或劣質產物

two-dimensional hydrogen bond network (dashed) between melamine (blue) and cyanuric acid (red)



大狗咬小狗 / 多狗咬小狗 或 貓 動保VS野保

- ▶ <https://www.youtube.com/watch?v=uC26jre2ChE>
- ▶ <https://www.youtube.com/watch?v=74DKHRNzH68>
- ▶ <https://www.youtube.com/watch?v=ddrpshaXxLg>
- ▶ 台北縣長 周錫瑋 上山打老虎 下水捉泥鰍
- ▶ <https://www.youtube.com/watch?v=TCSXy0DtGxY>

養20隻貓的宅男

43

- ▶ 大湯桶煮魚
- ▶ 每天餵食前再加熱
- ▶ 只吃魚肉
- ▶ 貓外貌與BMI尚良好
- ▶ 突然一周死5隻貓
- ▶ 飼主極憤怒認定鄰居毒殺貓
- ▶ 混種貓兩隻剖檢
- ▶ 黃疸
- ▶ 脂肪黃色且極濃重魚腥味
- ▶ 肝腫脹 黃色
- ▶ 請診斷→營養缺乏症
- ▶ 失落且自責的畜主
- ▶ 獸醫的社會責任

犬群之黃麴毒素中毒 Aflatoxin Intoxication in a Dog Pack

- 黃彥穎¹ 林荀龍² 吳福明² 廖俊旺¹ 吳弘毅¹ 林正忠¹
- 1. 中興大學獸醫病理生物所
- 2. 中興大學獸醫系

摘要 雲林縣某私人犬隻收容所飼養犬隻約 220 隻。據畜主表示，該場自民國 97 年 08 月開始使用雲林縣某飼料工廠所生產之犬用飼料。民國 97 年 11 月，該場陸續發現部分犬隻出現嗜睡及厭食之臨床症狀，有些犬隻會出現黃疸，並且會有黑糞及吐血之情形，進而在一週內死亡。畜主於民國 97 年 12 月更換飼料，並求助地方動物醫院，然而情況仍未見改善。民國 98 年 01 月 05 日，畜主將兩隻未治療於當日上午死亡，且症狀與前述相同之雌性（約兩歲與約八個月大）犬隻送至本校動物疾病診斷中心進行診斷。病理學檢查，剖檢時直至剖檢結束血液皆無法凝固；兩犬隻皆有腹水，肝臟皆呈明顯鮮豔黃色，消化道腔內皆含有大量血液。組織病理學檢查，兩犬隻肝臟結構排列凌亂，肝小葉皆見肝細胞瀰漫性嚴重腫脹。畜主表示於自 98 年 01 月即對該場犬隻投以保肝藥物，於 02 月該場犬隻死亡狀況已緩解。由於畜主不願提供該飼料工廠所生產之飼料，且表示已私下送檢相關單位，並驗證黃麴毒素量超過安全標準；故以犬群之黃麴毒素中毒為最終診斷（Aflatoxin Intoxication in a Dog Pack）。聯絡作者：林正忠，Email: cclin1@mail.nchu.edu.tw

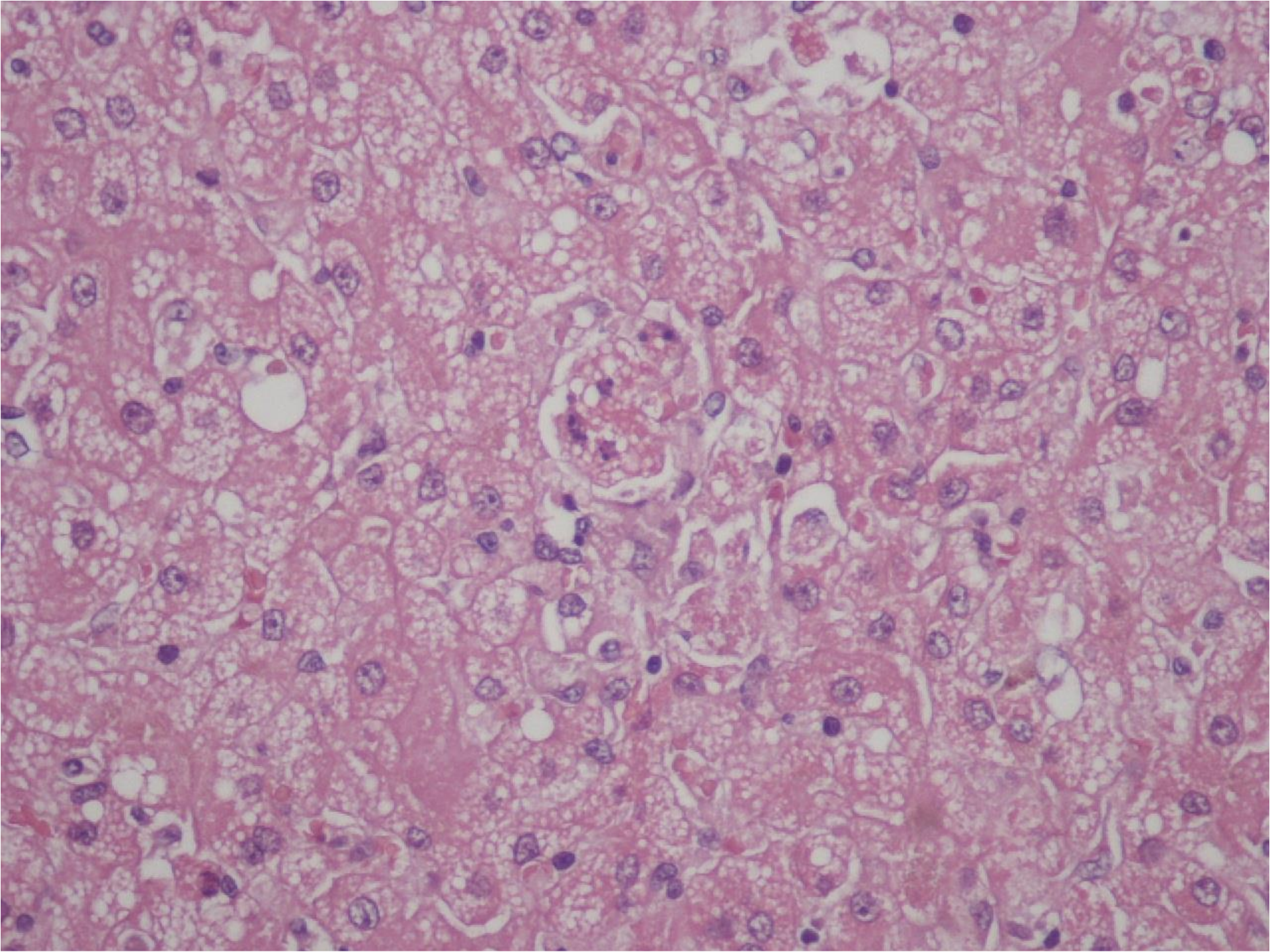


B

A







獸醫法醫病理學中 肉眼與顯微病變的適用性

- ▶ The veterinary aspects of the majority of forensic cases will be decided on gross lesions, rather than microscopic changes, and whether they match with other evidence in the case. 綜觀全局之肉眼病變比顯微病變重要
- ▶ There are particular circumstances where forensic histopathology can give convincing supportive evidence (see, for example, Chapter 9: Asphyxia and drowning). 在溺斃與窒息案例較有用
- ▶ Nevertheless, in the current state of knowledge, care should be exercised about placing reliance on microscopic findings for assisting with, for example, the precise estimation of time since death and duration of injury. 顯微病變也用於估計死前病變過程與時程

One of the major differences between veterinary and medical forensic pathology

- ▶ is the sheer number of species of animals and birds that the veterinarian might be asked to examine. To be knowledgeable about all of them is an impossible expectation. However, establishing contacts with specialists, who can provide advice on species identification, feeding habits, anatomy, diseases, etc., can partially redress this difficulty. Unfortunately, there are also many gaps in the current knowledge on forensic veterinary pathology.

常被要求鑑定動物的種類與種別(超過本職 請另找專家供諮詢 獸醫師仍須精進)



對獸醫法醫知識之不足要承認且提出建議與尋求協助

- ▶ As the interest in forensic matters continues to build, these gaps will decrease but, in the meantime, the absence of detailed accounts of tissue reactions or lesions found in specific circumstances may be perplexing. The pathologist must, therefore, be constantly aware of the limitations and be prepared to advise that findings are inconclusive or are open to alternative interpretation. This can be disconcerting for the legal profession, which relies on veterinary guidance – but that is a legal problem not a veterinary one. 病理學家必須不斷意識到其知識的局限性，並準備提出建議，以確定結果是不確定的或可以接受替代解釋。但這些不是獸醫的法律問題。

動保與野保

- ▶ 動保法實施以前(民國 87 年 11 月 04 日)與實施初期—民法(物權概念)
- ▶ 獸醫鑒定—動物屍體之鑑識
- ▶ 病理獸醫醫師—仵作兼葬儀社
- ▶ 第一例—台東地檢—山上原住民冰箱中的無毛大鳥屠體 (特生的誕生與標本庫)
- ▶ 台北縣長周錫瑋—上山打老虎—小羊遭遊蕩犬攻擊
上個月仍在發生

狗與貓的衝突

- ▶ 咬痕與甩動/口水
- ▶ 意外? 民法/動保法
- ▶ 鬥狗
- ▶ 動保法--動物：指犬、貓及其他人為飼養或管領之脊椎動物，包括經濟動物、實驗動物、寵物及其他動物。故無脊椎動物不算—昆蟲/軟體動物
- ▶ 檢驗費用?

醫學專業名詞 在人醫與獸醫間有不同 宜注意並小心

- ▶ As in all specialities, terminology is important – and is particularly crucial when dealing with the Courts. In general, Courts are familiar with ‘human’ terminology and it is usually helpful if the veterinarian, when giving evidence, **adheres to accepted medical terms**. 未免誤會盡量接近人醫名詞
- ▶ An example is the confusion that can arise when veterinarians use a word such as ‘laceration’ 撕裂傷 when, in fact, they are describing an ‘incised wound’ 切開的傷口.
- ▶ 此現象常發生於動物受虐案件與受虐種類。

保險索賠案件之證據紀錄－ 如常之詳實紀錄

- ▶ Insurance claims, over the cause of injury or the onset of disease in purchased animals, are usually civil matters and may depend on the balance of probabilities rather than 'beyond reasonable doubt'. 不要做過度的合理的懷疑 (推測是**非**直接證據的)
- ▶ But for the pathologist the task is the same: meticulous records, care and attention to detail, clear reporting and recognition that the veterinary report is produced to help the Court arrive at a just decision. 如常之詳實紀錄

2 Fundamentals of Animal Abuse

- ▶ Classification of abuse
- ▶ Confusion frequently surrounds the words 'animal abuse', because they are used to encompass a great variety of circumstances. 動物受虐（環境多樣且混亂）
- ▶ In addition, other terms, such as 'animal cruelty' 對動物酷刑, 'maltreatment' 不良對待 or 'ill treatment' 病態對待 are also widespread.

人對相同動物與不同動物 有不一樣的價值判斷

- ▶ Veterinarians are aware (sometimes uneasily) that a further complication lies in the fact that the question of whether a situation or act involving an animal is judged 'abusive' also depends on the views that human society holds on particular groups of animals.
- ▶ For example, attitudes on what is accepted as tolerable regarding the husbandry and slaughter of farm livestock, the trapping and poisoning of animal 'vermin', and the use of laboratory animals in scientific research are quite different from what would be regarded as acceptable in the family pets.
- ▶ In other words, treatment that is commonly tolerated in one group of animals might well be considered 'abusive' in another.

獸醫對於動物受虐的處理(價值判斷標準 **生活與生命的價值**)

- ▶ 獸醫們要判斷（但有時不容易）是否涉及動物受虐的情況或行為，
因需進一步了解人性的複雜。
- ▶ “虐待”一詞往往也取決於人類社會對特定動物群體的既有看法。
例如：以下三者往往被認為是可以接受的
 1. 關於對經濟動物於牧場的養殖方式與在屠宰場中屠宰
 2. 有害動物(如老鼠與害蟲等)的捕捉和毒殺。
 3. 在科學研究中使用實驗動物
- ▶ 這三類對物的處置方式與家庭寵物間有極大的不同。換言之，相同動物在一群動物中對視為可接受的處置但在另一羣動物則可能被視為虐待。
- ▶ 例如beagle與hamster 既是寵物也可能是實驗動物

以兒童受虐為例證科學性類比 驗證於伴侶動物等動物受虐

- ▶ However, in companion animals, confusion can easily and simply be avoided by applying the tried and tested typology developed successfully by the medical profession for child abuse.
- ▶ It can also be used in appropriate cases in all other animal groups.

Advantages of the typology

類型學的優點

- It is simple. 簡單
- It allows a common language between veterinarians and other health professionals, such as paediatricians or child protection personnel.
獸醫學與醫學共通術語(尤其小兒科有臨床相同狀況且類似狀況-兒童與動物之受虐及保護)
- It reinforces consensus on consistent terminology, which is an important factor when carrying out research in this difficult field. Without the use of standard definitions, it is difficult to compare research conducted by different research teams. 強調專業術語的共通性與一致化

► The typology consists of four basic types of abuse:

Physical 身體, Sexual 性, Emotional abuse 情感虐待,
Neglect 遺棄、忽視

► More than one type may coexist. 可同時一種以上的虐待。

Physical abuse 身體虐待

- ▶ Synonyms: non-accidental injury (NAI) 非意外傷害; battered pet syndrome 虐待寵物綜合症
- ▶ The perpetrator of physical abuse subjects the animal to a variety of actions that cause bodily injury. In some cases the fact that deliberate physical abuse has taken place is perfectly clear. A man witnessed beating his dog to death with a hammer would be such an instance. In others it is much less straightforward, and therefore can be much more difficult to recognize and diagnose. (See Chapter 3: Non-accidental injury.) 有些有目擊者發現但許多案件則難以辨識或診斷出
- ▶ Figures from the Royal Society for the Prevention of Cruelty to Animals (RSPCA) in England and Wales for offences involving violence to animals show that violent acts are more often carried out by men than by women. (男人比女人多暴力虐待動物RSPCA統計)

Sexual abuse 動物受性虐待

- ▶ This means the use of an animal for sexual gratification. 以動物為宣洩性慾之工具
- ▶ The term 'animal sexual abuse' is preferable to the more familiar 'bestiality' or 'zoophilia', both of which focus primarily on the perpetrator, and thus fail to convey any sense of the physical harm that may occur to the animal. (See Chapter 14: Sexual abuse of animals.) 醫學名獸姦或戀獸癖
用於人類但強調肇事者，卻不討論受害動物 故稱為動物受性虐待
- ▶ It is the very fact that the abuse involves the sexual organs or anus/rectum that distinguishes the abuse as sexual in nature. Physical injury to animals (or birds) of either sex may result and, depending on the actual type of sexual act carried out, and the size of the animal, can be very severe.
男人或女人虐待任何一種性別的動物（或鳥類）涉及性器官或肛門/直腸，但仍為性交本質。並且根據所進行的性行為的實際類型和動物的大小，可能非常造成嚴重身體傷害或甚至死亡。

Emotional abuse 情感(緒)虐待

- ▶ Although some might claim that animals have no emotions, and therefore cannot be emotionally abused, it is difficult to believe that veterinarians and animal behavior specialists would agree.
- ▶ For example, regular threatening behavior and verbal harassment of the animal (shouts, angry gestures), or a failure to provide psychological comfort, clearly constitute emotional abuse. However, neither author of this textbook makes any claim to expertise in this area, belonging as it does to the realm of specialists in animal behavior. It is therefore not a subject of discussion here.雖然有人認為動物無情感與情緒，但專家與獸醫不一定同意。例如威脅行為和對動物的口頭騷擾（呼喊，憤怒的手勢）或不能使動物感覺心情舒適，顯然構成情感(緒)虐待。就如獸醫相對於動物行為專家領域一樣有隔閡。因此，此部分非獸醫法醫學討論的主題。

Neglect 遺棄、忽視

- ▶ This simply means a failure to provide the animal with the basic physical necessities of life: food, water and shelter. It also includes failure to seek veterinary attention for injury and for naturally occurring illness. Failure to provide veterinary attention in cases of natural illness is neglectful and falls within the definition of abuse. 這僅僅意味著未能提供動物生活基本的生活必需品：食物，水和住所。還有疾病時的獸醫診療，而生病未送醫也屬虐待（五項動物福利的原則）
- ▶ Abandonment of an animal is a clear example of neglect, as is the all too common practice of allowing a collar to tighten and constrict the neck of a growing animal. Both men and women neglect animals, and it is common in all animal groups. (See Chapter 5: Neglect.)
男人、女人皆有棄養動物及 動物長大卻不調鬆項圈等

‘Intentional’ and ‘non-intentional’ abuse 故意與非故意虐待

意虐待

- ▶ The law with regard to animals varies from country to country, and in some countries abuse is subdivided into *intentional* and *non-intentional*. This is not the case in Great Britain, because in both English and Scots law a lack of ‘intention’ to abuse is irrelevant under animal welfare legislation. In other words, it is not a defence for a person to claim that they did not intend to cause harm, or were unaware of the animal’s needs.
- ▶ The factor taken into account by a Court of Law when judging a case is what a *reasonable person* would have done in the particular circumstances of that case. 關於動物的法律因國而異，在某些國家，虐待被細分為故意和非故意的，而非故意則較不受罰。法院在判定案件時考量因素為：人在該案的具體情況下做該事情是否合理與合法。

偵查中的個案不要擅自對外 公開檢驗結果

- ▶ 不是自己解剖案例不應任意評論
- ▶ CSVP 討論已經結案 且由提供病例者依需要說明診斷

MOD vs COD 人類法醫定義

潘至信 *、曾柏元 **、蕭開平 法務部法醫研究所

- ▶ 法醫解剖（Forensic autopsy）最重要的核心工作的鑑定有二
- ▶ 死亡原因（Cause of death, COD）--必須符合國際疾病分類（International Statistical Classification of Diseases and Related Health Problems, ICD）的疾病診斷，因此必須由具醫師資格者為之。
- ▶ 死亡方式（Manner of death, MOD）。
- ▶ 另法醫解剖外觀及顯微鏡觀察，涉及病理學中宏觀病理（Gross pathology）及顯微病理Micropathology）診斷，必須由在醫院經過長期（4年）的訓練，並通過考試認證，而取得解剖病理專科醫師證書者為之。
- ▶ 其中死亡原因而法醫解剖中，涉及死亡原因的診斷與研判，需有專業的法醫病理訓練並通過考試認證，而取得法醫病理專科醫師證書者為之。

案例討論提供/受理單位

- ▶ 英國UK 與美國之案例（教科書）
- ▶ 台灣之受理通報政府單位(各地方政府)：—
 - ▶ 縣市家畜疾病防治所/
 - ▶ 直轄市動物保護(防疫)處
- ▶ 民間動物保護團體：
 - ▶ ASPCA 美國 各分會
 - ▶ RSPCA UK 各分會
 - ▶ 台灣各地區動物保護協會或動物急救隊
 - ▶ 熱心獸醫



Part 1 introduction

ASPCA





常見人為知的動物死亡案件

Dog hit by cars



A man kneels at the body of a dog killed when it was hit by his car on a busy city street during rush hour. Sitting in the car crying is the ...

依法須排除

- ▶ 肉用動物屠宰
- ▶ 與公眾利益衝突之動物數量控制
例如：流浪動物(犬、貓)之人道毀滅
- ▶ 以公共衛生為目的數量控制
例如：禽流感AI時患禽或疑禽之撲殺
- ▶ 其他依法行政之動物銷毀
- ▶ ????家禽之性別篩選???? 蛋公雞(鴨)

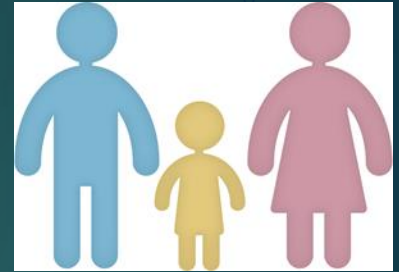


This stray puppy was killed by a car on 11th January 2014 in Nafplion, Greece, the driver failed to stop and left the body in the middle of the road.



The issues raised by a death may include 死亡現象引發之質疑項目

- ▶ identification of the deceased 鑑定死者
- ▶ the medical cause of death, 醫療致死
- ▶ the interpretation of injuries, 傷害方式之解析
- ▶ the manner of death (in some jurisdictions), i.e. accident, suicide or homicide 司法管轄之死亡原因



- ▶ Read more:
<http://www.forensicmed.co.uk/pathology/>

cause of death(COD)死因 (較有醫學性--病理診斷)



- ▶ Performs autopsies/postmortem examinations to determine the **cause of death**. The autopsy report contains an opinion about :
- ▶ The **pathologic process, injury, or disease that directly results in or initiates a series of events that lead to a person's death** (also called **mechanism of death**), such as a bullet wound to the head(頭部子彈傷), exsanguination caused by a stab wound(刺傷引致失血), manual or ligature strangulation(加工窒息；繩帶窒息), myocardial infarction resulting from coronary artery disease(冠狀血管疾病造成心肌梗塞), etc.

Read more:

<http://www.forensicmed.co.uk/pathology/>

Manner of death(MOD)

死因(較具司法中刑法涵義)



Part 1 introduction

- ▶ The "manner of death", the circumstances surrounding the cause of death, which in most jurisdictions include:
- ▶ Homicide 人為
- ▶ Accidental 意外
- ▶ Natural 自然死
- ▶ Suicide 自殺
- ▶ Undetermined 無法判定



Read more:

<http://www.forensicmed.co.uk/pathology/>

forensic scientists 鑑識專家們

75

The forensic investigation of death is a **multi-disciplinary activity**, involving the **collaboration** between pathologists, crime scene investigators (CSIs), forensic scientists, and other specialists, such as anthropologists, entomologists, odontologists (dentists) and many other experts.



CSI:
CRIME SCENE INVESTIGATION

Read more:

<http://www.forensicmed.co.uk/pathology/>

日本貨船進港船頭竟掛「巨大鯨魚死屍」？嚇壞當地漁民

2021-09-24 09:22 聯合報 / 編譯張君堯／



日本一座港口近日出現震驚一幕，一艘貨船駛入時，人們發現居然有一頭長達32英尺（約9.7公尺）的長鬚鯨的屍體「掛」在船頭上。

日本貨船駛入港口時，被發現居然有一具長鬚鯨的屍體（約9.7公尺）「掛」在船頭上



每年長鬚鯨(略小於藍鯨)與船隻相撞的次數極多，
且往往導致長鬚鯨死亡

台灣首度紀錄的藍鯨



喉腹摺

2020大年初一擱淺鯨魚 證實為台灣首度紀錄的藍鯨
這隻巨鯨身長24公尺、寬2.5公尺。於台東縣長濱海
灘發現這極消瘦的屍體，身上有網具纏繞的痕跡。

死亡原因 (Cause of death, COD (歐洲為主))

- ▶ 主要死因：與死亡有關的主要原發性疾病或外傷
- ▶ 直接死因：直接致死的致命性併發症（如感染、出血、栓塞、肺水腫…）
- ▶ 誘因：誘導身體原有潛在病變惡化而致死的因素（情緒激動、勞累、氣候、飲食）
- ▶ 輔助死因：與主要死因無直接因果關係，在死亡過程中僅起輔助作用

死亡方式

根據死因和死亡性質的不同，概括分為兩大類：

（一）暴力死：（非自然死亡或外因性死亡）按死亡情節和方式的不同，又區分為：

- ▶ 1．自殺死：用暴力手段結束自己性命。
- ▶ 2．他殺死：被他人用暴力手段殺害致死。
- ▶ 3．意外死（災害死）：因意外的暴力損害人體所造成的死亡；意外可發生於日常生活、工作過程中，常見的有工傷、交通事故、失足、煤氣中毒、誤吸毒物、觸電、火災以及醫療事故等。

（二）非暴力死：又稱自然死或內因死，包括老衰死和病死。老衰死係指人到老年由於全部生命過程逐漸耗盡所引起的死亡，但單純的老衰死極其罕見。

法醫創傷學 1

- ▶ 損傷是指機體受外界因素作用，導致組織器官的結構破壞或（和）功能障礙（身體的完整性受到破壞）。
- ▶ 按致傷因素性質分類可分為三類：
 - ▶ 物理性 — 如機械、高溫、低溫、電流、放射線等；
 - ▶ 化學性 — 如強酸、強鹼各種腐蝕性毒物、無機化合物、有機化合物等；
 - ▶ 生物性 — 如動物、植物、微生物等。

法醫創傷學 2

- ▶ 按解剖學分類可分為二類

開放性損傷 閉合性損傷。

- ▶ 按損傷部位分類可分為二類

局部性損傷

全身性損傷（顱腦、面、頸、胸、腹、會陰及四肢）。

- ▶ 按損傷程度分類可分為三類

致命（死）傷、

普通 和嚴重傷害身體完整性。



人高處墜落
面向前與面向後
脫鞋與否(整齊排放)



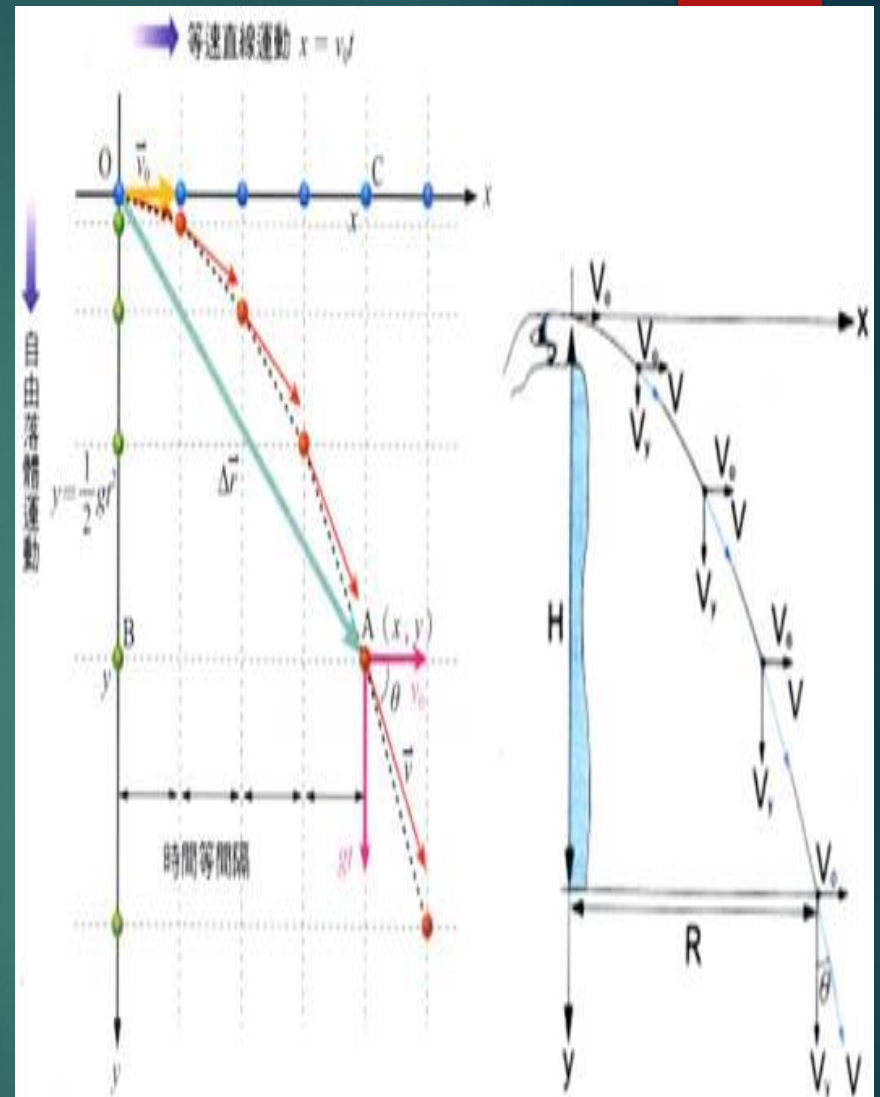
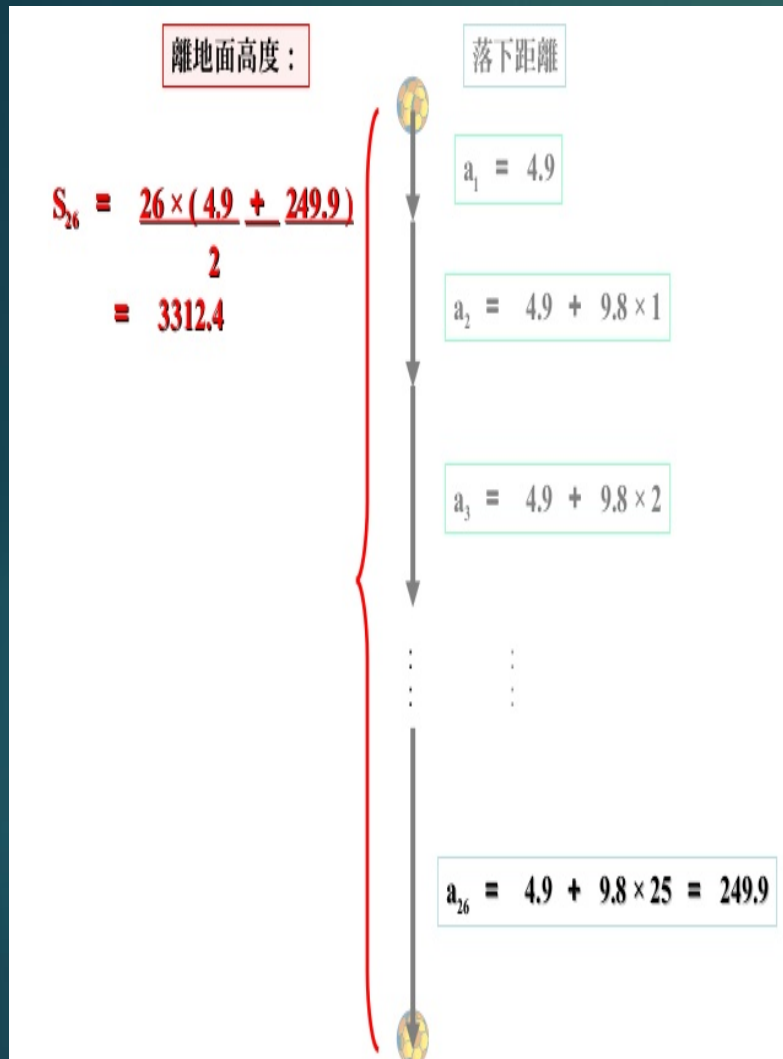
A



B



C



原地掉落 $h = \frac{1}{2}gt^2$ 與 等速直線運動後墜落

犬貓高處墜落綜合症 病變比較

Table 5.2. Comparison of injuries in dogs and cats with high rise syndrome.

Injury	% of 132 cats (falls 2–32 stories)	% of 104 cats (falls 1–6 stories)	% of 80 dogs (falls 1–6 stories)
Thorax	90	80	83
Pulmonary contusions	88	52	37
Pneumothorax	83	43	25
Facial	57	NA	45
Hard palate fx	17	NA	0
Dental fx	17	19	14
Mandibular fx	9	NA	3
Extremity fxs	81	83	80
Forelimb	54	41	80
Hindlimb	46	28	41

NA = not available

Source: Gordon, L.E., C. Thacher, and A. Kapatkin. 1993. High-Rise Syndrome in Dogs: 81 Cases (1985–1991). *Journal of American Veterinary Medical Association*, 202 (1):118–122.



胸
肺
氣胸
顏面
硬顎
齒
下顎
骨折

cat's "righting reflex"

貓之扶正反射

下頁

- ▶ During a fall from a high place, a cat can reflexively twist its body and right itself using its acute sense of balance and flexibility. This is known as the cat's "righting reflex". The minimum height required for this to occur in most cats (safely) would be around 90 cm.
- ▶ However, it has been argued that, after having reached terminal velocity, cats would orient their limbs horizontally such that their body hits the ground first.[5] A 1987 study speculated that this is done after falling five stories to ensure the cat reaches a terminal velocity by thereafter relaxing and spreading their bodies to increase drag.
- ▶ Why cats fall from high places : Cats have a natural fondness for heights. If a cat is distracted by a potential prey, or if it falls asleep, it can fall. If this were to occur in a tree, for example, the cat would often be able to save itself by grabbing on with its claws. Many building materials such as concrete and painted metal do not allow a cat to grip successfully.[11]

獸醫師繼續教育課程

日期：113年4月19日（五）

- ▶ 時間：12:00~13:00
- ▶ 地點：中興大學獸醫學院動物疾病診斷中心108教室 (臺中市南區興大路145號)
- ▶ 講師：林正忠副教授/獸醫師
- ▶ 主講題目：病理獸醫師處理動保案件經驗分享
- ▶ 課程大綱：
 - ▶ 1. 處理動保案件時，跟傳統的病理解剖有什麼異同之處。
 - ▶ 2. 處理動保案件應注意事項
 - ▶ 3. 動保案件的解剖實務上常遇到什麼問題及案例經驗分享

法醫學與鑑識科學

- ▶ 受害者(已死亡動物)物種鑑定/標準品 RFLP/ PCR
美國佛州(邁阿密)法醫中心-羽毛/象牙/動物組織
- ▶ 需要添購的設備—
 - A. X-ray/子彈/骨折與脫臼
 - B.血液生化檢驗 (年齡/肝腎功能/脫水)
 - C.剃毛剪/放大鏡/量筒/紙袋等
- ▶ 問診技巧—最可能的加害者—畜主

愛爸 愛媽中特殊的一群孤獨者

溝通要領(知己知彼)

- ▶ 大量餵食流浪動物
- ▶ 花費許多金錢與時間
- ▶ 張羅犬貓食物/不一定有能力清理動物居住環境
- ▶ 基本教義派(僅犬貓)
- ▶ 宗教-布施 來世福報 消罪惡 去業障
- ▶ 容易與鄰人起衝突/人際關係與溝通方式不良(不聽意見)
- ▶ 個性較內向或偏執
- ▶ 社經地位不高(低收)
- ▶ 極度享受與沉溺於許多動物簇擁與撒嬌
- ▶ 歡喜心 部分在斂財

飼主的PTSD/獸醫的PITS

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- ▶ 是指人在經歷過情感、戰爭、交通事故等創傷事件後產生的精神疾病
- ▶ 創傷後壓力症候群（Post-traumatic stress disorder，簡稱PTSD，又稱創傷後遺症）
- ▶ 因自身殺害他人或動物而起的創傷後壓力。而自身傷害他人的經驗所導致的心理創傷
- ▶ 「加害者創傷壓力」（perpetration-induced traumatic stress，縮寫為PITS）

綠鬣蜥獵捕

繁殖期 雄性高調區域性炫耀

