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Bulletin of the RCPATH

Veterinary Forensic Workshop held in Kenya

A One-Day Workshop on Veterinary Forensic Medicine was held in Kenya on Wednesday 18th May 2011. It was organised by the Department of Veterinary Pathology, Microbiology and Parasitology of the Faculty of Veterinary Medicine, University of Nairobi and it took place in the Faculty's lecture rooms and laboratories at its Kabete campus, fourteen kilometres north-west of Nairobi.

As visiting members of staff at the University of Nairobi, my wife and I had already, in November 2010, presented a seminar on forensics in which we drew attention to the parallels between "human" and "animal" investigations and the need for those who are active in these fields to draw on the expertise of others in allied disciplines. We argued that there was a need to raise awareness, not only at the University of Nairobi and elsewhere in academia, but also amongst other medical, veterinary and scientific bodies in Kenya and further afield in East Africa. We were met with an enthusiastic response by the audience and by the academic colleagues who had organised the seminar.

This Workshop at Kabete in May was the first step in an ambitious programme of which the ultimate aim is the introduction by the University of a Certificate or Diploma and then (subject to Senate approval) a Master's degree in Forensic Science. In all these ventures the emphasis will be on "comparative forensics" - a "one-health" approach that relates the art and practice of forensic medicine and pathology in animals to humans and to the environment.

The proper investigation of crimes relating to animals is of great relevance and importance in East Africa, where cruelty (often taking the form of neglect or abuse) to domesticated animals is still widespread and where the poaching of wildlife species is prevalent. The situation is complicated further by the fact that enactment and enforcement of legislation are not necessarily a high priority in the area..

The participants on the Workshop came from a range of disciplines, predominantly but not entirely members of the veterinary profession, with a good number of students also in attendance. Forty people were expected but 178 finally registered! Such a response was most encouraging and said much for the publicity generated by the University but it posed some logistical challenges, especially in respect of catering, the provision of Course Notes and the co-ordinating of practical sessions. However, these were very efficiently dealt with by our

Kenyan colleagues, under the direction of Professor Peter Gathumbi, Chairman of the Department of Veterinary Pathology, Microbiology and Parasitology.

The day was not restricted to didactic lectures and demonstrations. During registration, refreshments and lunch attendees were able to view literature and a display of equipment relating to forensic work. The topics demonstrated in this material included basic forensic methods, crime scene investigation, the collection of evidence, laboratory techniques, report-writing and appearing in court.

The morning session was chaired by Professor Philip Nyaga, a veterinary pathologist, who first introduced to the audience Dr Victor Yamo, Chairman of the Kenya Veterinary Board (the disciplinary and regulatory body for the veterinary profession in Kenya). Dr Yamo welcomed delegates and outlined the role and responsibilities of the KVB, especially in the light of new legislation that has recently gone through Parliament. He confirmed that veterinarians attending the Workshop for the whole day would be eligible for CPD credits.

The morning's lectures starting with two presentations by Professor John E Cooper from the UK, who is also a Visiting Professor at the University of Nairobi. He covered the definition of forensic medicine, historical developments in forensic veterinary medicine, challenges and current issues in forensics, theories and practices and the links between veterinary and human forensics. As a pathologist, he emphasised the importance of meticulous investigation and expounded on the role of gross and microscopical examination of material of animal origin.

This was followed, after coffee, by a presentation by Mrs Margaret E Cooper, also from the UK, who is a Visiting Lecturer at the University of Nairobi. She discussed international and Kenyan law relating to animals, legal proceedings and the role of the veterinarians and others who appear in court.

There followed a lively session, under a heading of animal health and forensic case studies, which was entitled "Anecdotes". These were, in fact, accounts of forensic cases presented from their personal experience by two practising members of the veterinary profession in Kenya, Drs P G Mbutia and JM Mbaria. The speakers pointed out that in Kenya, where agriculture is so important, cases relating to the loss of livestock arise quite frequently and it is important that veterinary clinicians and pathologists are willing and able to be involved.

The next speaker was Mr Moses Otiende, a scientist with Kenya Wildlife Services (KWS) whose subject was the "wildlife and forensic interlink". He introduced his lecture by reminding the audience of the toll inflicted on African wildlife and the environment by illegal acts, particularly poaching of animals and plants. Such activities warranted investigation by

the appropriate authorities and, when sufficient evidence had been collected, arresting those involved and taking them to court. This, however, was not always easy, especially in East Africa, where distances are large and law enforcement is neither easy nor necessarily safe. He concentrated particularly on the value in forensic investigations of DNA and other molecular techniques and announced that KWS was in the process of establishing its own DNA laboratory. This prompted considerable discussion, in particular the suggestion that the KWS laboratory should be developed in conjunction with the Faculty of Veterinary Medicine and other relevant institutions with an interest in forensics, particularly as they have staff who could provide specialist help in such areas as pathology, biochemistry and clinical investigation.

The final speaker of the morning was Mrs Jean Gilchrist from the Kenya Society for the Protection and Care of Animals (KSPCA). Her topic was animal cruelty and she detailed many of the cases with which the KSPCA deals on a regular basis. She reiterated the point made by the previous speaker: although Kenya has animal welfare legislation, this is often not enforced and successful prosecution of cases against those alleged to have caused unnecessary suffering is relatively rare. She emphasised, however, the valuable role played by Kenyan veterinarians in the care of such animals, especially those that had been abused physically, and welcomed the availability of the Faculty for *post-mortem* examination and other work. She nevertheless lamented the lack of proper training in forensic techniques for these and others in East Africa whose advice was so often needed in cruelty cases.

Over lunch registrants mingled out-of-doors in the extensive courtyard of the Faculty, with a view of green, rolling agricultural land, and there made contact with attendees from other fields of veterinary medicine, wildlife conservation and forensic science. The afternoon session was devoted to practical work. Registrants were divided into groups and technicians, appropriately clad in white coats and armed with laboratory “timers”, were drafted in to ensure a strict timetable so that each group could experience – and to a certain extent

participate in – the various activities. The subjects covered in the practicals were forensic entomology (Mr Laban Njoroge, Kenya Medical Research Institute (KEMRI) and National Museums of Kenya (/NMK),

“Bones, hair and bodies ... hands-on examination of specimens” (Professor John E Cooper and Mr Mwebi Ogeto, NMK), forensic case scenarios (Mrs Margaret E Cooper) and *post-*

mortem protocol and sampling (Professors PK Gathumbi and PN Nyaga and Dr PG Mbutia,

FVM). There was a strong emphasis in several of the sessions on the importance in forensic work of an understanding of comparative anatomy and pathology: sound knowledge of these subjects can contribute greatly to the correct interpretation of changes in both soft

tissues and the skeleton. Differentiation of *ante-mortem* and *post-mortem* changes is important, as is the recognition of lesions caused by different species of animal predator and by humans wielding weapons that can range from the local *panga* (machete) to very sophisticated automatic firearms.

The practical sessions proved very popular and it was clear, both from registrants' verbal comments and from their written suggestions on the questionnaire that was distributed to all attendees that, as is usual in such workshops, more time and greater hands-on involvement in the practical demonstrations would have been appreciated and beneficial.

The day ended with a formal Summing-up and Closing Ceremony chaired by Prof. Gathumbi and attended by Prof. JN Munene, Dean of the FVM, Prof. A Wang'ombe, Principal of the College of Agriculture and Veterinary Sciences, of which the Faculty is a part, Prof. Nyaga and Prof. and Mrs Cooper. The dignitaries complimented Prof. Gathumbi and his team on an excellent day. There were presentations and signed certificates were made available for collection by all those who had attended.

In this litigious age, veterinarians, biologists and others concerned with animals need formal teaching in forensic techniques so that evidence is correctly presented and reports are of maximum value to courts of law. Competence in these respects is important in terms of wildlife conservation, animal welfare, professional standards and the judicial process. This step in the new venture towards providing education in veterinary forensics, the Workshop at Kabete in May, was a credit to the University of Nairobi and, in particular to the Faculty of Veterinary Medicine and its Department of Veterinary Pathology, Microbiology and Parasitology. It is heartening that Kenyan veterinary pathologists are taking the lead in recognising the need for integrated, but focussed, training in animal and comparative forensics.

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