

VETERINARY SURGERY - THE PAST AND THE PRESENT

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The necessity of handling a number of species of animals with definite anatomic and physiologic variations had imposed limitations in formulating therapeutic procedures in Veterinary Medicine. The varieties of disease states was yet another factor of constraint. The animals to be managed included domestic animals, laboratory animals and wild animals i.e. animals in their natural habitat and those maintained in an environment created for making use of them. However, therapeutic procedures including surgical operations were suggested in most of the disease conditions from time to time. Experimental Surgery was being done for a long time in animals, with the idea of designing therapeutic procedures in human medicine, utilising domestic and laboratory animals. The concepts formulated in experimental surgery were adopted in veterinary clinics also for treatment and for cosmetic and elective surgery. But, because pain and sepsis could not be controlled effectively in animal patients, the adoption of surgery as a routine in treatment was very less in the clinics. It was only by the middle of the 20th century, the techniques for anaesthesia and antisepsis-asepsis were properly formulated in animal patients and surgery was adopted as a routine in veterinary clinics in India.

Proper diagnosis of diseases was also difficult because direct information was not available. Based on indirect information and observation from conventional methods of examination, conclusions were drawn and treatment was done. Exploratory surgery was advised in some instances but the outcome was not always encouraging. This state of affairs had changed only when modern laboratory methods of diagnosis and imaging techniques has found its way into Veterinary clinics.

Teaching the subject of surgery in Veterinary

Colleges in India was done using cadavers in the earlier days. Though the cadaver was a poor substitute for live tissue, the on-hand training it imparted to under-graduate students was satisfactory. Subsequent introduction of live animal exercises had advantages in that it helped the students to learn (i) the habits in surgery (ii) manipulation of various live tissues and organs as envisaged in surgery and (iii) reoperative and postoperative care. Live animal exercises had imparted true on hand training and to some extent substituted over emphasis in class room teaching in theory. Added to this, the knowledge gained in clinics made teaching very satisfactory. However, live animal exercises were later discontinued and clinical surgery alone is now being used in teaching, of course supplemented with alternative steps to impart information. With the reduction in the number of domestic animals especially in the urban areas in Kerala, clinical teaching is seriously affected. Even with the adoption of modern innovations in visual demonstration facilities, the lack of onhand training and limitations in gathering knowledge in clinical biology may handicap the undergraduate teaching.

A great deal of research work has been done on various aspects in veterinary surgery in Veterinary Colleges and research institutes in India during the last five decades. The introduction of postgraduate programmes wherein research is an essential requirement has contributed much to this. Published reports indicate that studies have been conducted on wound healing, shock, surgery of gastrointestinal system, urinary system, bones and joints and sensory organs. Extensive studies on animal anaesthesia, radiology and other imaging technics have also been reported. The quantum of information added has been very substantial and it

has improved clinical approach, skill and efficiency in veterinary practice. Compared to the quantity of experimental work done, the application in day-to-day work in clinics may appear very little. But the availability of skilled personal and facilities ensures the availability of better service for the animal patients.

Commercial considerations have been very important in management practices of animals especially in the urban and suburban areas in Kerala, till recently. Though there is reduction in the population of domestic animals, the persons who keep animals have become more considerate, sympathetic and sentimental. Hence commercial considerations are secondary and surgery is no exception. This is a good sign of the acceptance of the practices and better awareness of animal lovers.

The constraint in surgical practice in field clinics

was the limited physical facilities and the scarcity of trained personnel. Surgery as a treatment can be done only with a team work. With scarcity of personnel, surgery becomes difficult. A single person acting as diagnostician, anaesthetist and surgeon has its advantages. When everything about the patient is known to the surgeon surgical handling will be more scientific and purposeful. But it increases the labour and may tell upon the judgement and outcome.

The future demands will be more exacting as far as surgical practices are concerned in veterinary clinics. The patient and the client will need speciality management and scientific handling. More than as a means of saving life and prolonging the utility of the patient, surgery must be convincing and purposeful. Hence, the professionals have to be well trained in newer technics and the necessity of teamwork must be inculcated. □

Getting beyond surgical contraception

Surgical sterilization has long been considered the gold standard for managing dog and cat populations in the United States. Yet the millions of stray and unwanted companion animals euthanized each year in this country raise questions about whether the gold standard is really just gold-plated, and if there's a better way of reducing the numbers of surplus animals. The most obvious shortcoming of spaying and neutering as methods of population control is one of logistics. For a number of reasons, ranging from a lack of responsible pet ownership to affordability, too few cats and dogs are being sterilized. Early spaying and neutering, discounted surgeries, or mandatory sterilization requirements for pet adoption have all been offered as solutions to the overpopulation problem.

The sad reality remains, however. The number of new litters of fertile dogs and cats born each day in the United States vastly exceeds the delivery system for surgical sterilization, resulting in excess numbers of unwanted animals. Those not fortunate enough to be adopted can become victims of starvation, trauma, and disease. Dr. Margaret Slater, an associate professor of epidemiology at Texas A&M University, recently highlighted the overpopulation problem as it applies to cats. Speaking this past November at an international symposium in Alexandria, Va., on nonsurgical contraceptive methods for population

control, Dr. Slater explained that the number of feral and stray cats in the United States is estimated at around a third to a half that of the owned cat population, which translates into 30 to 45 million free-roaming cats.

More than a hundred people from across the world gathered at the symposium, hosted by the Alliance for Contraception in Cats & Dogs, to hear about the latest developments in dog and cat population management and new contraception technologies. While surgical sterilization is an essential tool in pet population control, ACC&D President Joyce Briggs believes additional contraception options are desperately needed. "I believe that when we are still euthanizing millions of animals as a means of managing dog and cat populations, it's a crisis," Briggs said. What the ACC&D is searching for is a drug, vaccine, or implant that is safe, inexpensive, and capable of rendering a cat or dog permanently sterile after a one-time procedure. Such a holy grail of chemical castration has yet to be discovered. But considering the scope of the surplus dog and cat problem, the alliance is stepping up its efforts to support research for the eventual development and commercialization, both domestically and abroad, of dog and cat contraceptives. The AVMA encourages research into the development and use of nonsurgical methods of sterilization.