

## Historical Highlights on the Veterinary Varieties

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### Abstract

History is an important field with veritable veterinary elements. Therefore, this paper presents the historical aspects within its boundaries and related fields. It is deemed practical that the historical approach can highlight matters. In this context, the materials in my mini library are deemed to suffice while any previous publications will be added, all being in chronological order.

**Keywords:** History; Veterinary; Varieties, Highlights; Present materials; Chronology

### Introduction

Historical highlights are presented with the interesting materials in my possession in the veterinary field and related matters. In summary the chronology approach is deemed to be sufficient as follows:

#### Historical texts

1. 1664 - Robert Hooke "demonstrated that a dog could be kept alive with an open chest by blowing air through a bellows inserted into the trachea. The heart continued its normal beat. When he stopped pumping the bellows the heart, after a while, began what Hooke called "convulsive motions". When the pumping of the bellows was renewed the heart resumed its normal beat. Thus he showed that the continued movement of the heart was dependent on an exchange of the air in the lungs, that there was this link between the respiratory and circulatory systems".
2. 1720 - Deidier transmitted plague by injecting bile from plague corpses into dogs; he showed that the bile of dogs dying of plague produced plague in other dogs, and he showed that the bike of persons dying of other fevers did not produce plague.
3. 1726 - Daniel Furner described treatments, such as using the blood from the tail of a black cat treat shingles.
4. 1753 - John Haunter investigated the organs and mechanism of hearing in fishes, the phenomenon of hibernation in animals that led to the observation of the arrest of digestive processes in the dormant state, and the effects of hypothermus.
5. 1775 - Edward Jenner studied cuckoos, hedgehogs, eels, hares, and many other animals.
6. 1798 - Astley Cooper carried out several experiments of tying of the thoracic duct in dogs and confided that he "may mention that my friend Mr. Coleman, professor at the Veterinary college, has several times found blood in the thoracic duct of horses which had died without any rupture of the blood vessels, which shows a direct absorption of blood under certain circumstances.
7. 1813 - Langenbeck injected into the veins of a dog, some pulp taken from a cancer which had just been removed from a living body. At the end of some weeks, the dog began to waste rapidly. It was then killed, and several cancerous tumors were found in its lungs.

8. 1851 – Dr. Horner removed from a female a scirrhus mamma, a portion of which, at his request, he took home for microscopic examination. In structure it proved to be composed of fibrous tissue and nucleated, elongated, or caudated cells. After the examination, about four hours subsequent to the removal of the tumor from the woman, Dr. L. inserted four pieces of the tumor, each half an inch long by one-eighth of an inch broad and thick, beneath the integument of the back of a large frog. Three of the fragments were pushed forward to the vicinity of the ear. In a few days succeeding the operation, the incision of the skin perfectly cicatrized.
9. 1855- Mr. Leblane stated that, in all cases in which he had been able, after an interval of from one to six years, to examine animals from whom he had removed large, old, softened, and ulcerated cancers, there had been a return of the disease.
10. 1871 – Theodor Billroth with his assistant turned to experiments on dogs. His success in dogs suggested its potential in the treatment of laryngeal cancer in humans.
11. 1876 – Gorge Beatson obtained the licence for removing the ovaries from sucking rabbits. The experimental results were such that he applied the principals to the ablation of the ovaries of breast cancer patients, cure being obtained in some cases.
12. 1876 – Robert Koch investigated a disease prevalent in the sheep-rearing districts. On 22 April, 1876, and for the two following days, he demonstrated his findings before Cohn, Cohnheim and Weigert.
13. 1877 – Eduard Albert experimented on the dogs: The ischiadic Nerve was bilaterally exposed, a section was removed from each side the left one was implanted to the right and vice versa. The grafts took.
14. 1880 – Alexander Ogston was disturbed by hospital deaths due to infection. He inoculated eggs under Listerian precautions. The pure cultures were then injected into guinea pigs and mice. As it was stated, “The miracle that Lister started empirically, Ogston finished scientifically”.
15. 1882 – Sigmund Freud published “On the structure of the nerve fibres and Nerve cell of the River Cray fish”, examining the tissues microscopically.
16. 1884 - Pasteur reported success in immunizing dogs against rabies using a series of subcutaneous inoculations containing neural tissue of gradually increasing virulence derived from their passage in monkeys and rabbits.
17. 1885 – Senn opened the superior saggical sinus of horses and found that air would enter with a “lapping” sound whenever the head was held elevated.
18. 1889 – Wehr took portions of tumors of the prepuce of the dogs or of the mucous membrane of the vestibula and inoculated them into the subcutaneous connective tissue of twenty six other dogs. Twenty four nodules were obtained, five of which were examined microscopically, and in one case the tumors grew progressively until the death of the animal, which was brought about by rupture of the bladder as the result of the compression of the urethra by the tumor mass. The whole pelvic cavity in this instance was infiltrated, and metastases were found in other parts of the body.
19. 1889 – Arthur Hanau transplanted spontaneous carcinoma of the vulva of a rat to the testes of two old male rats. He did not, however, fully realize the great value of his discovery for the experimental study of animal tumors.
20. 1898 – The Curies soon after their discovery of radium performed numerous experiments on plants and lower animals later extending it to personal skin operations.

## Discussion

The above examples portray the maltreatment of the animals during the experiments performed on them. Perhaps, this should be balanced with the historical account of them that I personally published earlier [21]. Incidentally, I used the peculiar “Tandem Style” whereby a word that ends a paragraph automatically begins the next one! In effect, this simulates how riders of that bicycle must necessarily cooperate. In this context, I did personally carry out animal experiment in 1963 [22]. It confirmed what I had concluded regarding the tendency of cancer cells to spread ipsilaterally in the human body.

Moreover, I was able to outline various models based on the human body itself. This was done in order to bypass the animal experiments. They were published variously [23–33].

## Conclusion

Each of the above personally published models was in tune with the very view of Nicholson [34]. In his own words, “Pathologists can dispense largely with animal experiments” I am really persuaded that Nature has provided giant opportunities in the above recorded phenomena. Indeed, the keys to unlock them ought to be fashioned. Thereafter, targeted therapy of cancer would materialize sooner than later [35,35].

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