

Cinderella Moments in Medicine: Animals serving in beneficial roles in biomedical research

Without animals my mother would not be here. Since 2002 my mother has been on Octreotide LAR hormone; it was an 18 gauge needle twice every three weeks. This was causing scarring at the injection site and major trauma. At the end of last year, she moved to a different synthetic hormone, with one injection every four weeks, out of a smaller, more comfortable, needle. This has led to lower than average activity in her Gallium₆₈ scans, which started five years ago. Needless to say, her regimen is complicated. Suffering from completely metastasized Neuroendocrine Cancer is not something most would consider a walk in the park. Since her diagnosis, late in 2001, she has continually fought against the odds for her life. The research of a whole host of dedicated scientists, however, makes her continuing each day possible.

Dr. Patty Trobridge, et al. is tied, in some way, to the wide variety of research that has gone into this illness this decade. In 2009 she introduced the method for inducing intestinal neoplasms in murine subjects. Up through this point volunteers came forward, fearing death lest they subject themselves to the risks. The first version of the Octreotide was Sandostatin. The needle was large, the fluid was viscous to the point of difficulty for even experienced nurses, and the drug is hard for facilities to process. The new compound has undergone a variety of animal tests from Su-Chen Li, et al. publishing in 2015 the results of the analogue version. My mother, since transitioning has faced fewer difficulties with injections and has moved to a general practitioners office for processing. While officially linked to dietary issues, the somatostatin (octreotide) has had links to tumor control and reduction in patients as it acts against growth hormones. This can be seen to be the case in my mother who, despite being diagnosed for 16 years, has seen continual sizes. The use of toxicology and protein markers in rats have allowed for toxicology reports linked to Gallium₆₈ scans to be generated and observed. Through that testing the use of this isotope has come into practice. Not only is the clarity on the scan rivaling MRI and PET techniques, but allowing for my mother to more safely get updates on her tumors. Due to an intense allergy to the Gadolinium contrast medium, MRIs require immune-suppressant drugs. Through toxicology reports based on animal models described by Varsha Babu and tested by Ayoub Aghanejad, et al. the drug was insured safe for human testing and eventual use.

The use of animals in medicine has allowed for individuals, such as my mother, to enjoy as much of life as possible by both provided the extension to life and the expansion of biomedical endeavors to ease the process. To keep us informed, researchers endeavor to go beyond the known techniques of evaluation and expand our vision into health through the aid of animals. Through crucial studies involving comprehensive understanding how her cancer functions in vivo new things are being learned quickly. And, through these same measures, one day the cure will be found to her disease. Going beyond the day to day products of many, my mother and I will always remember how biomedical research using animals has preserved her life.

Works Cited

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