Arguments For Cat Dissection: Analytical Essay

Pets play a big role in someone's life as well as in a lot of families. They bring joy to the world and are the reason for a lot of people’s smile. Not only pets but animals in general no matter the shape or size. But what completes the animal? What makes them, them? In a span of four days the anatomy class was given the opportunity to dissect a cat and learn about most of the body systems. The students were required to investigate how the deceased cat died and study if any organs were damaged. Our group had the honor of working on Ms. Kars. So how did Ms. Kars die?

Cats and most animals are classified as animalias. All animals or living organisms in the animalia kingdom are multicellular, which means that they have more than one cell. Instead of having rigid cells, they have permeable membranes which are surrounded by fluid. Animals such as cats reproduce sexually meaning that in order to make babies, two animals are needed. These animals are heterotrophs which mean that they can not make their own food like plants, autotrophs, so they must hunt for their own food. Animals must “ingest, or eat, other organisms.”

For four days, we were given the chance to dissect a cat and study all the systems and their organs. The first day, we worked with the integumentary system which consists of the skin, nails, hair, and more. We skinned Ms. Kars but did not notice anything that could have caused her death. The next day we opened up the abdominal region and studied the digestive system as well as the urinary system. We opened up all the organs including the small intestine, large intestine. Pancreas, liver, kidneys, and more. Again, there was nothing to prove Ms. kars’ death so we awaited for the next day. We looked at the reproductive system and found nothing so we moved on to the thoracic cavity. This included both the respiratory and circulatory system. We cut through the diaphragm and removed the ribs. The heart was perfectly fine but when we blew in the trachea with a straw, only one of the lungs inflated. We concluded that Ms. Kars had died from lung failure. The next day we studied the brain but it seemed perfectly normal. The only issue was the lungs.

The lungs are very important organs that keep the body up and running. Without it the body would not survive. It transports oxygen to the blood which then spreads throughout the entire body. Not only that but it also removes carbon dioxide from the blood. If the level of oxygen in the blood decreases, the animal will go into distress. Since oxygen isn’t moving through the body, organs begin to fail which can result in fatal death.

I concluded that Ms. Kars died from shocked lungs or acute respiratory distress syndrome also known as ARDS. symptoms include having a hard time breathing, coughing, fever, and discharge from the nose. Since only one of Ms. Kars’ lungs was inflating, it is inferred that she was having a very hard time breathing. So what caused Acute Respiratory Distress Syndrome? Well there are many ways this could have occurred, including pneumonia, a serious and strong infection, trauma or injury to the lungs, and even “near drowning”. When the capillaries leaked fluid into the lungs, it got in the way of the body’s ability to pass the oxygen to the lungs. Since the tissue was damaged, it could no longer exchange oxygen, Ms. Kars unfortunately passed away.

So what could have saved Ms. Kars if the opportunity was given? First she would have been given oxygen to help her maintain her body alive and running. At the beginning of this disease or disorder cats are given an “oxygen cage, or a line that carries oxygen directly into the nasal passages.” however, if ARDS is at it's higher stages, the animal must be hooked up to a mechanical ventilator to help them stay alive and support them. Ms. Kars must be anesthetized so she doesn't feel any discomfort or pain when the tube is being passed through her trachea which basically breathe for her. Cats are usually immediately put on IV when hospitalized and must also have a strict diet since they are very weak during this time. They must receive their food through a feeding tube or through an intravenous nutritional support. Acute Respiratory Distress Syndrome is a very difficult disease to go through and requires a lot of care. Sadly, ARDS has a low life expectancy meaning there’s a low chance of survival. Either way, Ms. Kars wouldn’t have survived this strong and horrible disease.

What is so different about cats and humans? Are they even different at all? Well there are some differences along with a ton of similarities. For example, cats have 250 bones while humans have only 206. Cats also have 52 or 53 vertebrae while humans have only 32 to 34. Not only that but it is also known that humans have a longer digestive system than cats do. While humans have a transverse colon, cats do not. For the muscular system, cats have three different muscles that add up to one human bone. While cats have a clavotrapezius, acromiotrapezius, and spinotrapezius, the human body only has the trapezius. However, all these muscles end up doing the same function as the trapezius. Between the human’s circulatory system and the cat’s circulatory system there are rarely any differences that are known of. Unlike the human’s dorsal oriented scapula, cats have a “laterally oriented scapula”. Most of the differences between cats and humans are a part of the skeletal system.

Even though both skeletal systems are quite different from each other, the respiratory systems are almost exactly the same. Not only that but both pancreas’ have the same function which is to get rid of harmful and unnecessary fluid from the urinary system before it keeps going on the path through the urinary tract. Both human and cat females have the same reproductive organs such as the ovaries, fallopian tubes, a uterus, and a vagina. Males are also similar since they both have a penis, testes, and prostate glands. Both humans and cats also have four appendages and have a skeletal system that supports their body and any body movement. In the circulatory system, both humans and cats have four chambered hearts and arteries that pump blood in while veins pump out. Cats and humans aren’t that different when actually looking inside and studying the body systems.

Unfortunately, Acute Respiratory Distress Syndrome also occurs in humans and is a very common thing for patients who are hospitalized because of how ill they are. It can also happen when a serious accident or trauma occurs. Symptoms of ARDS in a human include low blood pressure, rapid breathing, headaches, confusion, fever, a dry cough, and more. Factors that could increase the chances of someone getting Acute Respiratory Distress Syndrome is being over 65 years of age, having a chronic lung disease, and having a history of smoking or drinking. So how can someone check if they have ARDS? A doctor must be contacted of course and should take a blood test immediately. A chest X-ray and a CT would also help determine if someone has this disease. If these scans show sacs filled with fluid in the lungs, then ARDS is positive. Treatments include receiving oxygen just like the cat. Being given an oxygen mask and being hooked up to a mechanical ventilator are very common treatments. Medication is also given to help with the side effects including pain, discomfort, any dangerous infection, and blood thinners to prevent blood clots from happening. Pulmonary rehabilitation may also be needed to

strengthen the patient's breathing. It is said that 30 to 50 percent of the people affected by this disease will unfortunately pass away.

Overall, this cat dissection has taught me and many other students how to investigate and how to work together to figure out why our cat died. It has also helped me understand a lot about Acute Respiratory Distress Syndrome and how serious of a disease it is. This cat dissection was an amazing experience that not only was super fun also made me realize that medicine is something I am very passionate about.