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BioMedical Sciences

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 Case Report

Introduction:

Anna Garcia was mysteriously found dead on a hot summer morning after apparently walking her dog that morning. Her neighbor notified the cops with the news, and the EMS pronounced her as a deceased victim shortly afterwards. On the crime scene, fortunately, much evidence was collected. With the evidence obtained, certain procedures and processes went into effect to be analyzed and uncover the unknown mysteries of Anna’s death.

Summary of Findings:

There are four persons of interest in the death of Anna Garcia, and each seem to have a less than reputable standing with Anna around the time of which she had died: Alex Garcia, Doug Greene, Erica Piedmont, Lucy Leffingfield, and Anna herself. Alex Garcia (Anna’s ex-husband) was at Anna’s house last night supposedly discussing paperwork. Ironically, Alex is having financial issues and is still beneficiary to Anna’s life insurance plan. Alex’s new wife, Erica, was seen outside Anna’s house the day before Anna’s passing. Doug Greene, Anna’s neighbor and former lover, last saw Anna at six o’clock in the morning on the day of her death. Lucy Leffingwell, Anna’s best friend, has been having business problems. Lucy has also notified people of authority that Anna Garcia had been in the hospital recently, but was recently finished her antibiotics cycle.

 At the crime scene, Anna Garcia was found face down in the interior of her home. Certain items including a table, lamp, telephone, fingerprint on the orange juice glass, and furniture/items were found askew identifying some sense of abrupt activity at the scene. Evidence collected/noted at the crime scene included: vomit, pills, blood droppings/spatter, hair on lamp, muddy shoe print, and syringe. The crime scene was then marked off and photographed with atomic clock and ruler within each photo. When the evidence was safely transported to lab, data was analyzed and results were made. The hair along with the shoeprint at the crime scene seemed to belong to Anna Garcia, the pills had the same characteristics of Asprin, the fingerprint could belong to Lucy Leffingwell or Anna Garcia, and the blood found at the crime scene was Anna’s or Erica’s. With these results stated, there was a great deal of uncertainty within the lab results.

 The fingerprints were extremely easy to identify. The persons of interest simply have their fingerprints documented on a piece of paper, and then those fingerprints were compared to the fingerprint obtained from the orange juice glass. Thus, carefully comparing the fingerprints should set solid ground work to whom the fingerprint belonged to.

 The hair collected to obtain DNA to compare to the persons of interest to identify who the hair belonged to. When comparing DNA, mixtures have to be preformed to actually break the DNA out of the cell. After going through that complex process, the DNA is then cut up by a restriction enzyme, and those pieces are then separated during the Gel Electrophoresis process by the attraction of opposite poles and the substances that make up the gel. The process can be used for the blood as well.

 The pills were determined to be Asprin by accommodating reactions that certain substances had with one another. This process then occurred with the “substance”, also known as the pills found at the crime scene. The lab studies compared the identified substance’s reactions to the unknown substance’s reaction.

 The shoe print was determined by investigators gathering the shoeprints of all possible persons of interest. They did so in a way that the shoe was photographed. Then, the photograph was compared the print of the shoe found at the crime scene. Thus, placing who was at the crime scene during the time of Anna’s departure from Earth.

 Blood droplets can be extremely useful to investigators when configuring the events that occurred approximately around the time of Anna’s death. When conducting the experiment, blood was dropped to see the effect height had on the blood droplets. The data proved that the higher the blood was dropped, the larger the splatter diameter. The size of the blood droplets found near Anna at the crime scene proclaim that Anna was evidently already on the ground with the blood exited her body.

 There were many inconsistencies in the laboratory studies. The main concern should be the blood type. Just because a certain blood type matches with another, it doesn’t mean the two blood samples belong to the same person. There are only a limited amount of certain blood types. If one wants to see if blood matched a person’s blood, then a DNA analysis should be preformed. Also, the syringe was never tested for drugs or any possible DNA that could be on the tip from physical contact. Another inconsistency was the blood splatter analysis. The blood, when being dropped, is not in the same amount or proportion when being dropped. This could cause experimental error. Thus, the more blood attained, the larger the splatter of the blood will be. To prevent this in the future, only certain amounts of blood can be gathered by the dropper before dropping.

Conclusion:

 With all mysterious deaths, an autopsy must be performed. Anna’s death was certainly mysterious, so an autopsy was in fact preformed. The autopsy declared that edema was present at the location of the ankles, oxygen deprivation was relevant, no signs of alcohol or overdose, and trauma to head present. Having an autopsy gives a sense of closure on a case, but there is still more evidence to be acquired by investigators. An interview should definitely take place now considering the signs of unexplainable trauma to the head were identified.

* Manner of Death: NATURAL

 I strongly believe that Anna had either a sugar issue or may have been diabetic. Maybe she was on a walk without testing her blood sugar that morning. She began shake and become nervous which led to her being a slight off balance. Thus, causing her to step in some mud. When she got home, her simple solution was to take Asprin with a cup of orange juice. If that didn’t work, she was going to use her Insulin shot to make her body become at ease. Unfortunately, when she took the shot, her body went into shock causing her to fall over while knocking over furniture. When she fell, she had fallen face down causing her to hit her nose. Also, Anna began to vomit considering her stomach was just filled with the pill of Asprin and her stomach hitting the floor so abruptly. Since she was laying down when the vomit began to eject, her oxygen was not granted a passage way which lead to oxygen deprivation.