

Acknowledgements

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Abstract

Violent crimes are largely prevalent in cities across the United States. In current popular television shows, display characters involved with violent crimes and disposing of victims' bodies using harsh chemicals, including drain cleaners. Without an intact body at a crime scene, how does a criminalistics team process decomposed evidence? This study used pig rib as a surrogate for human flesh to analyze the effects of drain cleaner on the process of forensically analyzing DNA. The rib tips were exposed to acid, base, and enzymatic based drain cleaners for two weeks, with DNA samples extracted and isolated daily. Nanodrop was used to analyze the concentration of DNA for each sample. Samples were analyzed using PCR and gel electrophoresis. The results displayed inconsistent DNA degradation across all treatment replicates. Base and enzymatic drain cleaner appeared to be less effective than the acid or water at degrading the DNA.

Table of Contents

Acknowledgements.....	i
Abstract	ii
List of Tables	iv
List of Figures.....	v
Introduction.....	1
Materials and Methods.....	5
Treatment of Pork Ribs and Isolation of DNA.....	5
Quantitation and PCR.....	5
Results.....	8
Discussion.....	21
References.....	22

List of Tables

Table 1. pH Measurements for Treatment Solutions.....	5
Table 2. Sequence Names and Primer Sequences for the Primers Used for the <i>Sus</i> <i>scrofa</i>	6
Table 3. Average Nanodrop Concentrations.....	11

List of Figures

Figure 1. PCR Analysis of Untreated Pork DNA	7
Figure 2. Visual Appearance of Treated Ribs from Day Zero to Day Fourteen.....	9
Figure 3. Forensic DNA Analysis of Acid Drain Cleaner Treated Samples.....	14
Figure 4. Forensic DNA Analysis of Base Drain Cleaner Treated Samples	16
Figure 5. Forensic DNA Analysis of Enzymatic Drain Cleaner Treated Samples	18
Figure 6. Forensic DNA Analysis of Water Treated Samples	20