Int J Legal Med (2000) 113 : 247–248

CASE REPORT

B. Karger · S. P. Rand · B. Brinkmann

Criminal anticipation of DNA investigations resulting in mutilation of a corpse

Received: 26 February 1999 / Received in revised form: 15 July 1999

Abstract A corpse of a female was found in her apartment in a state of advanced putrefaction. Both hands were amputated, the external genitals were excised and the body parts had been removed from the scene. The subsequent investigations proved that the body parts had been severed post mortem. The cause of death was determined to be manual strangulation. A 33-year-old man later confessed that he had strangled the victim 9 days prior to discovery of the body and that he had had sexual intercourse post mortem. According to the confession, the rational motive for the subsequent mutilation was to eliminate biological stains (e.g. semen inside the vagina, epithelial cells below the fingernails from scratching) suitable for forensic DNA analysis. This constitutes a new type of defensive mutilation intended to prevent the identification of the perpetrator. An increase in the occurrence would be detrimental to the elucidation rate of homicides: in a total of 171 homicides investigated at this institute, DNA analysis of biological stains gave reliable evidence in 45 cases.

Key words Mutilation · Dismemberment · DNA analysis

Introduction

The mutilation of a human corpse occurs rarely but can raise considerable problems in the forensic investigation because the identity of the body, the cause and place of death and the post-mortem period can be difficult to determine. Criminal mutilation of a corpse is classified into two major groups according to the underlying motive (Ziemke 1918; Orsos 1940; Krauland et al. 1980; Püschel and Koops 1987; Rajs et al. 1998):

B. Karger (✉) · S. P. Rand · B. Brinkmann
Institute of Legal Medicine, University of Münster,
Von-Esmarch-Strasse 62, D-48149 Münster, Germany
Fax: +49-251-8355158

– Defensive mutilation, also called dismemberment, is intended to prevent the elucidation of a homicide after it has been committed. The rational motive of the perpetrator is usually to dispose of the body or to prevent identification of the body parts.

– Offensive mutilation is an irrational act carried out in a frenzied state of mind. Mutilation sometimes precedes the killing of the victim.

The rapid development of forensic DNA analysis has stimulated a novel type of defensive mutilation intended to prevent the application of this powerful tool.

Case report

The corpse of a 32-year-old woman was found in her apartment in a state of advanced putrefaction (Fig. 1). The undressed body was lying in a supine position and both hands were amputated at the wrists showing clean-cut wound margins and incisions of the corresponding bones. The external genitals were excised in that a clean-cut skin defect of approximately 10 × 20 cm including the vaginal opening and the first 2 cm of the vagina was missing. The pubic bone showed several sharp incisions. Small hemorrhages verified by histological

Fig. 1 The original position of the body lying on the bed in the bedroom

examination were present in the right sternocleidomastoid muscle and in the soft tissues in front of the larynx and the thyroid gland. Petechial hemorrhages were confirmed histologically in the conjunctivae and congestion was present in the head/neck region but the evidential value of further histological examination was hampered by advanced putrefaction. The lungs showed pronounced edema and some hemorrhages. Histological examination of the wound margins showed no vital signs such as inflammatory cells. Histology of the other organs and extensive toxicological investigations gave negative results, the previous social and medical history of the victim was uneventful. After exclusion of natural and toxicological factors, the cause of death was determined to be strangulation.

The 33-year-old unemployed perpetrator was arrested 1 month later because fibres found on the dead body were identical with those found in his apartment. He confessed that 9 days before the body was discovered he had strangled the victim and subsequently had had sexual intercourse. He led the police to the site where he had buried a bag containing the hands, the external genitals, a long kitchen knife used to excise the body parts, the clothing of the victim and several pieces of cloth he had used to wipe the body. DNA analysis verified that the hands and genitals belonged to the victim. Although the perpetrator admitted sexual intercourse with ejaculation, only cell debris but no spermatozoa could be detected in the swabs taken during autopsy from the remains of the vagina, anus and mouth or in the external genitals recovered subsequently and DNA of the victim only could be amplified. This could have been due to the state of advanced putrefaction of the corpse and body parts and/or to a lack of spermatozoa in the ejaculate (azoospermia). The perpetrator was sentenced to 8 years for manslaughter.

Discussion

After the crime had been committed, the man reasoned that the fingernails of the victim could bear epithelial cells from him because she had scratched him during the fight and also that he had deposited semen inside the vagina. He later confessed that he knew that this material could be used for reliable identification by forensic DNA analysis and therefore decided to destroy the body parts carrying these biological stains. The perpetrator had even anticipated future scientific developments by wiping the dead body with a piece of cloth: successful individualisation of DNA transferred to the neck of a victim during manual strangulation has since been reported (Wiegand et al. 1998).

This “informed” type of defensive mutilation is intended to prevent identification of the perpetrator by analysis of DNA transferred to the victim. The pattern of mutilation will depend on the prior interactions between perpetrator and victim and on the perpetrator’s knowledge of recent scientific developments. An increase in the occurrence is possible in the future and the effects would be detrimental to the elucidation rate of homicides. In a broad spectrum of 171 homicides investigated in detail at this institute from 1994 to 1998, DNA evidence proved to be increasingly important: the prosecution department requested DNA analysis in 71 of these homicides, and successful individualisation of biological stains represented reliable evidence in 45 of these cases.

References

Krauland W, Schneider V, Smerling M, Ludwig WR (1980) Defensive Leichenzerstückelung. Arch Kriminol 166:1–17

Orsos F (1940) Leichenzerstückelung. In: Neureiter F, Pietrusky F, Schütt E (eds) Handwörterbuch der gerichtlichen Medizin und naturwissenschaftlichen Kriminalistik. Springer, Berlin, pp 446–451

Püschel K, Koops E (1987) Zerstückelung und Verstümmelung (1. und 2. Teil). Arch Kriminol 180: 29–40 and 88–100

Rajs J, Lundström M, Broberg M, Lidberg L, Lindquist O (1998) Criminal mutilation of the human body in Sweden – a thirty-year medico-legal and forensic psychiatric study. J Forensic Sci 43:563–580

Wiegand P, Heide S, Stiller D, Kleiber M (1998) DNA-Untersuchung von Hautepithelzellen asserviert am Rollkragenpullover und am Hals des Opfers. Rechtsmedizin 8: 226–228

Ziemke E (1918) Über die kriminelle Zerstückelung von Leichen und die Sicherstellung ihrer Identität. Vjschr Gerichtl Med 56: 270–318

ANNOUNCEMENT

19th International Congress on Forensic Genetics
28 August–1 September 2001, Münster, Germany

Further information:
Prof. Dr. med. B. Brinkmann,
Institute of Legal Medicine,
Von-Esmarch-Strasse 62,
48149 Münster, Germany
e-mail: ISFG@uni-muenster.de
Tel.: +49-251-8355160/1
Fax: +49-251-8355158
Homepage: www.isfg2001.de.vu