RECONSTRUCTION OF AN ATYPICAL HOMICIDE AS AN EXAMPLE OF SUCCESSFUL BIOMECHANICAL-FORENSIC COOPERATION

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INTRODUCTION

In addition to forensic-traumatological investigations of the victims, forensic investigations of vehicles, the site of accident and clothing of the victim constitute an imperative basis for the biomechanical analysis of accidents and homicides. If necessary, molecular analyses are also carried out (Graw *et al.* 2002). The analysis of the course of events in which a vehicle is used as a weapon in cases of deliberate homicide thus presents a special challenge.

BACKGROUND/METHODS

Between two employees of a large company originated a verbal dispute. The body of the older man (61 years, 176 cm, 92,6 kg) was later found, with relatively few external injuries lying in the snow pinned under a pick-up vehicle. Following the incident, the main suspect fled from the scene. Eyewitnesses accounts were vague and the initial forensic evidence was unclear – as a result of the rescue measures. Because statements aquired from a number of different experts were contradictory, it was necessary to arrange a forensic-biomechanical investigation.
In the course of this investigation, there was a forensic autopsy with analysis of the internal tissues of the corpse with the soft tissues prepared in layers. The injuries were measured and documented and further evidence was obtained at the site of accident, from the vehicle and the clothes of the victim.

RESULTS AND DISCUSSION

The details of the accident could be reconstructed on the basis of an evidence matrix by taking all factors into consideration and through the detailed assignment of all the traces including injuries, fibres, scratch contacts (Graw and König 2002, Teresiński and Mądro 2002):

- The vehicle accelerated rapidly from a standing position and hit the pedestrian, who was in an upright position, head on.
- The pedestrian fell backwards onto the ground.
- The man was turned through both his horizontal and vertical axis along with the vehicle.
- In his final position the male victim was pinned under the car and lay on his stomach with his face pressed into a snow heap. This position finally lead to the death of the man, even though very few external injuries were cascertained: suffocation due to severe breathing obstruction.

During the early phase of the investigations, wrong and contradictory statements were given by the experts, since at that time none of the people involved in the inquiries had an overall view of all the factors involved. In addition, it was not a ‚normal' accident but a homicide. Only the cooperation between the forensic scientists and forensic biomechanists lead to the final reconstruction of the course of events.

SUMMARY

In addition to forensic-traumatological investigations of the victims, forensic investigations oj vehicles involved, at the site of accident and clothing worn by the victim constitute the imperative basis of the biomechanical analysis of accidents and homicides. Only the detailed and exact assignment of all the traces such as injuries, fibres and scratch contacts can lead to the most likely scenario of the course of events. The successful cooperation between forensic scientists and forensically-experienced biomechanists helped to solve an atypical homicide in which a vehicle was used as weapon.

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