G90 Death by a Radio-Controlled Helicopter

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The goal of this presentation is to report an unusual death by a radiocontrolled helicopter and to discuss the safety issues concerning model helicopters with the forensic community.

This presentation will impact the forensic community and/or humanity by providing awareness of the dangers in the recreational use of radio-controlled aviation models by detailing the types of fatal injuries that can occur with these aircrafts.

This case involves a 41yearold, white male who was instructing another man on how to operate a radio-controlled helicopter. The scene was a five-acre, grassy field, designated as an area for model aeronautic recreation. The instructor had five years of experience with flying radiocontrolled helicopters, whereas his student had just three months of experience. The instructor demonstrated to his student how to hover the helicopter, an older model PHI Tornado radio-controlled, and then passed the controls to his student. The student hovered the helicopter for a few minutes and was attempting to land it, when it tilted and came straight toward them. The student immediately threw himself to the ground and was uninjured; however, the instructor was struck by the helicopter blades and died at the scene.

At autopsy, the decedent had a 7 by 2 inch, gaping chop wound of the right side of the neck and chin. The wound injured the sternocleidomastoid muscle, the strap muscles, the salivary gland, and the right jugular vein. The mandible was exposed, and the transverse processes of the 4th and 5th cervical vertebrae were palpable through the wound. He also had linearpatterned abrasions on the right shoulder, right upper arm, and right upper back. Toxicology for alcohol was negative. An examination of the helicopter showed fragmentation of the main rotor blades with blood spatter on the frame and on the rotor blades. The rotor blades were made of fiberglass composite and had an interior metal wire along the leading edge. The helicopter measured approximately four feet in length, two feet in height, and had a main rotor span of five feet.

Based on the circumstances of death and type of injury in this case, there seems to be an inherent danger in the design and rotational movement of the blades used in radio-controlled helicopters. The use of radio-controlled aircraft is restricted to designated flying fields, and a license is not required to operate them. Flying fields also have designated areas for the aircraft operator with separate areas for spectators.

The recreational use of model helicopters and airplanes is guided by the Academy of Model Aeronautics, which publishes an official national model aircraft safety code. In addition, there are many local model airplane clubs that establish their own rules and regulations about the use of radiocontrolled aircraft, based on the official national code. Local clubs usually have their own posted safety guidelines at their flying fields. The Academy of Model Aeronautics recommends that qualified instructors should teach beginners how to use these aircrafts, as was the case in this situation. Instructors, however, are not required for beginners, who can instruct themselves on their use. It is also recommended that people learn to fly airplanes before flying helicopters.

This case illustrates an unfortunate accident where the recreational use of a radio-controlled helicopter by an inexperienced person led to the death of another individual.

Accidental Death, Radio-Controlled Helicopter, Safety Issues

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