



### D67 Danger of Cellular Phone and Autopsy in Case of Death by Lures

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The goal of this presentation is to expose the dangers of handling not struck and/or damaged explosives during external examination on the accident scene and during autopsy.

This presentation will impact the forensic community and/or humanity by demonstrating the necessity to be very prudent in case of external examination and/or autopsy when damaged or not struck ammunitions or others cartridges are present in the corpse or around the scene. Secondly, in such cases, it is important and necessary for an intervention following the bomb disposal expert. Finally, prudence should be practiced with cellular phones!

**Case-Report:** A case of a young soldier is presented who was found dead after an explosion. He worked in a French military base, and transported explosive ammunition and lures.

Suddenly, an explosion occurred. Part of the ammunition exploded followed by other explosions. The blast projected the body several meters high, and according to parabolic trajectory, of about thirty meters. During the external examination on site, we discovered the cephalic impact on the top of the hangar, five meters higher. The victim's cell phone was discovered near the accident scene. This was a very significant because, in these kinds of dangerous areas very sensitive to electromagnetic waves, any cellular phone is prohibited. After external examination, the corpse was transported to the Forensic Service for autopsy. During radiology at autopsy, many parts of the ammunitions (cartridges, shell...) were found. Although damaged, many were not struck cartridges. All these components were embedded in the corpse. The damage was very impressive. All of the organs were destroyed and in pieces. It took considerable time to remove all the ammunition! The toxicological analyses were negative.

**Hypothesis of mechanisms:** The different hypotheses are:

- The cellular phone was responsible for the first explosion (electromagnetic waves)
- A mechanical release by a fall from 1.5 m height (falls by awkwardness for example)
- The building which had a metal structure could play a part like an antenna (not like a Faraday cage) with a release by an electrical current
- The presence of a radio operator transmitter with strong power (160 W) in the zone of the disaster
- The possible action of two radars which emitted in direction of the building.

**The accident and consequences:** The explosion of the ammunitions propelled the other ammunition that did not explode, but they were damaged, unstable, and very dangerous. They had become very sensitive to a shock, even the most insignificant.

They were also sensitive to electromagnetic waves, which happened to be emitting from cellular phones in the investigators' pockets during autopsy!

**Discussion:** In this case-report, different kinds of firing and the operating conditions of the terrestrial lures are discussed. These are responsible for the explosions because they started thermal and physics reactions in chain.

In cases of this type of "discovery," personal safety of the forensic pathologist, policeman, radiologist, and other laboratory personnel is essential. In the case reported, this could have been too late...because the team became aware of the dangerousness after the external examination and autopsy and after a literature revue!

**Conclusion:**

- The purpose of the case-report is to sensitize the medical and forensic pathologists about the dangerousness of cartridges and paradoxically and especially the lures, even without shocks, only, potentially, with a cellular phone
- The intervention of bomb disposal experts is required in every suspicious case, before forensic intervention. Forensic intervention must take place as soon as the site is protected and made inoffensive.
- Ammunitions must be handled with care
- A good forensic pathologist is an a live pathologist...

### Lures, Autopsy, Safety