

H60 A Rare Suicide by a Homemade Explosive With Multiple Suicide Notes: A Case Report and Systematic Review of the Literature

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Learning Overview: After attending this presentation, attendees will understand how the construction of an illegal homemade explosive device may be very dangerous, especially in psychiatric patients with a high risk of suicide.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by showing the need for monitoring the production of homemade weapons by patients, through the collection of letters or diaries, in order to recognize promptly suicidal ideations and to prevent fatal events by these devices.

In recent years, the production of homemade weapons for recreational purposes has become increasingly widespread. Currently, the construction of these illegal devices is very simple thanks to the advent of numerous websites that explain how to produce a weapon with ease. Unfortunately, the risk associated with this phenomenon is poorly known. Several cases of suicide with home-manufactured firearms have been described in the literature while suicides with homemade explosives remain scarcely reported. A rare suicide of a patient with delusional depression is reported. The forensic investigations showed that the man had triggered a homemade explosive device, leaving dozens of suicide notes in which he announced his suicide. The case, presented in the context of a systematic review of the literature on suicides by explosives, demonstrates the need for monitoring the production of homemade weapons in psychiatric patients at high suicide risk. Monitoring of letters and transcripts could prove useful to reduce the risk of suicide in patients who have easy access to these means.

An elderly man was found dead outside his home. Neighbors said they heard a loud roar and contacted emergency services on suspicion of a gas leak. Family members reported that the man was passionate about building explosives and that he would soon have to undertake radiotherapy.

A crime scene investigation was carried out at the victim's home with photographic surveys. All the letters as well as the explosives present at the scene were analyzed. An autopsy was then performed. All organs were photographed, examined, and fixed in 10% formaldehyde. Biological fluids were collected for toxicological investigations. The data were compared with a systematic review of the literature about suicides by explosives. The PubMed® National Center for Biotechnology Information (NCBI) search engine was used by analyzing all the cases published in the English language between 1990 and 2020 through the key words: suicide AND (bomb OR explosion OR explosive). Papers concerning terrorist suicides or chemical explosions were excluded.

The crime scene investigation revealed a quantity of homemade pyrotechnic material equal to 500 grams in the man's bedroom. The analysis of the same room also showed about 20 suicide notes, a large part of which were hidden under the pillow of the bed; the others were kept in the trouser pockets worn by the man at the time of death. Autopsy showed traumatic destruction of the chest and abdomen with heart rupture and hemothorax. The examination of the abdomen revealed a clear line of hemorrhagic infiltration between the upper and lower abdominal quadrants attributable to the effect of the explosion, with hemoperitoneum and liver destruction. The toxicological investigations showed positivity for phenobarbital, whose blood concentration was equal to 17mcg/mL, as per drug therapy.

In solving the case, suicide notes were fundamental because they revealed a state of severe depression with obsessive and delusional suicidal ideation, which had been going on for several weeks. In accordance with the testimonial information, the man spoke of a cancer with a poor prognosis for which he should have undergone radiotherapy a few days later. The collected data were compared with the results of the literature review. Twenty-one published suicide cases were found from 1990 to 2020, with all male victims, aged 20–76 years (mean age of 37.6). In only three papers was the use of homemade explosives described.¹⁻³ Compared to the literature, the reported case is certainly unusual, both in relation to the home-manufactured weapon used and to the damage it produced. In particular, the autopsy evidence suggested that the victim had triggered the device by holding it in contact with his chest, using the right hand. The manner of the event was also confirmed by the numerous suicide notes found in the trousers and in the house, which showed suicidal thoughts that had been going on for weeks. This work demonstrates how the construction of illegal homemade weapons could be very dangerous, especially in people suffering from psychiatric disorders. For this reason, greater surveillance is emphasized, through the collection of letters and diaries, as tools to recognize suicidal ideations and to prevent fatal events by these devices.

Reference(s):

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Forensic Sciences, Homemade Explosive, Suicide Note

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