TECHNICAL NOTE

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Pen Guns in Turkey

ABSTRACT: This study describes the frequency and type of pen guns in Turkey by examining the cases sent to the Council of Forensic Medicine of Turkey between 2000 and 2004. In total, 32 cases and 61 pen guns were examined. These guns were evaluated in respect of the type of the gun, size and caliber, rifling, design, mechanism, fitness for use, legality, and geographical distribution. Fifty-nine percent of the guns were 22-gauge. Most commonly, they originate from South Eastern Anatolia. It is suggested that the guns are handmade.

KEYWORDS: forensic science, ballistics, pen guns

Pen guns, mole guns, and key holder guns are sometimes used as defense, attack, assassination, or suicidal guns (1–4). Unusual injuries and even deaths caused by shots from these special guns have been reported. Forensic medicine experts and pathologists should be aware that these types of guns are able to produce atypical bullet holes: as an example, a case where a bullet remained at the occipital lobe of the brain due to its low impact velocity has been reported (4).

In Turkey, pen guns are seldom encountered. In this report we briefly summarize the findings from a 5-year period from 2000 to 2004.

Materials and Methods

The material of this report consists of cases involving handmade guns sent to the Council of Forensic Medicine between 2000 and 2004. In total, 61 confiscated guns were examined in 32 cases during these years. These guns were evaluated in respect of the type of the gun, number of barrels, size and caliber, rifling, design, mechanism, fitness for use, legality, and geographical distribution.

Results

The yearly number of pen guns that were sent to be examined ranged from two in 2000 to 22 in 2003. All except two of the examined pen guns were made of just two main parts. All guns had one barrel. Only one pen gun (22-gauge) of the 61 examined had a rifled barrel.

The size of the guns, measured as maximum length, varied from 11 to 14.5 cm. In terms of caliber, 36 examples (59%) were 22-gauge, 14 (23%) were 8 mm blank cartridge, three (5%) were

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9 mm blank cartridge, three (5%) were 6.35 mm blank cartridge, 7.65 mm blank cartridge, and one (2%) was 7.62 mm blank cartridge. The calibers of three inoperative pen guns could not be determined. One of the 6.35 mm blank cartridge guns could be transformed to 22-gauge using a special apparatus.

A typical pen gun design is illustrated in Fig. 1. The guns are composed of two parts threaded together (Fig. 2). The barrel part contains an apparatus that serves as the chamber. A simple springloaded firing mechanism consisting of just a firing pin spring and firing pin (Fig. 3) is located in the body (Fig. 4). For use, the two parts are disassembled. A cartridge is inserted into the chamber, which is then reattached to the barrel. The firing mechanism is activated by simply retracting it. From this position, it can be released for firing.

A majority of 37 of the 61 pen guns (61%) originated from the Southeast Anatolia Region, 10 (16%) from the Marmara Region, one (2%) from the Inner Anatolian Region, and two (3%) from the Black Sea Region.



FIG. 1—A typical pen gun assembled (above) and dismantled into its primary components (below).



FIG. 2—Two views of a seemed pen gun design possessing a special cartridge adaptor.

Discussion

In Turkey, the legality criteria of guns are given in act 6136, which defines fitness for use, caliber, and type.

In addition to industrially manufactured guns, a firearm examiner occasionally encounters various handmade guns. Even mobile phone, credit card, cigar lighter, key ring, guns, etc., have been produced (5).

Although pen guns understandably are different from one country to another, the general characteristics seem to be similar. When pen guns are used in a crowded environment, it is impossible to determine who fired the gun or from where the gun was shot, and thus they can be used as an assassination gun at close range and nondefense situations (6).

It is very interesting that most of the guns submitted for examination were designed to use 22-caliber rimfire cartridges (36 pieces, 59%). Although 22-gauge cartridges are most common all over the world (7,8), among the industrially manufactured guns sent to our laboratories to be investigated, 22-gauge rimfire cartridges were rare, and they are not commonly used in Turkey. This fact leads us to believe that at least half of the pen guns, which were sent to our laboratories to be examined, are of foreign origin.

A blank firing pistol is a weapon that is designed to use only blank cartridges or tear gas cartridges. There are no projectiles in these cartridges (9). The production and intended purpose of the



FIG. 3—Appearances of dismantled pen guns with their firing pins.



FIG. 4—Construction of a pen gun. The upper one is cocked and the bottom one is released. 1—trigger mechanism, 2—barrel, 3—firing pin spring, 4—bolt, 5—firing pin, 6—cartridge, 7—cartridge case, 8—bullet.

blank cartridge pen guns are also interesting. Based on their appearance, it can be concluded that these pen guns are not produced or are used to scare somebody. Blank cartridge pistols similar to functional firearms are produced for the purpose of frightening somebody. However, the blank cartridge pen guns are produced to be able to fire a projectile, not to simply frighten. Two of the blank cartridge pen guns (8 and 9 mm) were sent with their associated bullets consisting of spherical buckshot inserted into the front of each blank cartridge.

Another significant aspect of our study was the small number of pen guns submitted from the Black Sea region (two pieces, 3%). In Turkey it is common knowledge that handmade guns are produced in simple ateliers in the Black Sea Region. This supports our theory that pen guns, instead of being produced in Turkey, are purchased from abroad.

It is noteworthy that the largest number of pen guns originates from the South East Anatolia Region where a widespread wave of terrorism has lasted for decades. The region also suffers from more unsolved cases of homicide than other regions of the country. Although these guns, designed to look like a writing pen, easily concealed in the pocket and perfectly suitable for shooting from a close distance, would be an alternative to reckon with by assassins, the connection between the aforementioned criminality phenomena and the prevalence of pen guns in the area remains unproven for the present.

Pen guns are of concern because they can easily be concealed and the owners usually do not apply for a permit for them. In addition, the gun type and shooting distance are difficult to determine based on gunshot residues and entry wounds (5).

Considering that pen guns seem to be commonly available and likely to be used, security authorities should take precautions. Officer awareness regarding the risks involved should be improved. The sensitivity of detection systems should be optimized to allow an early warning of the presence of pen guns.

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References

- Book RG, Botha JB. Zulu zip-guns and an unusual murder. Am J Forensic Med Pathol 1994;15(4):319–24.
- Hartshorne NJ, Reay DT, Harruff RC. Accidental firearm fatality involving a hand-crafted pen gun. Case report. Am J Forensic Med Pathol 1997;18(1):92–5.
- Uner HB, Gürpinar SS, Çakir I. Mole gun—an unusual firearm, a case note. Forensic Sci Int 2001;118:83–5.

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- Smialek JE, Ratanaproeksa O, Spitz WU. Accidental death with tear gas pen gun: a case report. J Forensic Sci 1975;20(4):708–13.
 Yilmaz R, Birincioglu I, Arslan E, Yolcu K, Butun C. Pen and key holder
- Yilmaz R, Birincioglu I, Arslan E, Yolcu K, Butun C. Pen and key holder guns—three cases. Proceedings of the 3rd Congress of the Balkan Academy of Forensic Sciences, June 2–5, 2005, Constanta, Romania. Istanbul, Turkey: Balkan Academy of Forensic Sciences, Official Publication of the Balkan Academy of Forensic Sciences, 2005.
- Berg SO. The forensic ballistics laboratory in forensic medicine. In: Tedeschi CG, Ecket WG, Tedeschi GL, editors. Philadelphia: WB Saunders Co, 1977.
- 7. Di Maio VJM. Gunshot wounds. Practical aspects of firearms, ballistics and forensic techniques. New York: Elsevier, 1985:128.
- Erdem SA. Dünyanın En Çok Kullanılan Silahı 22'likler. Av Doğa Silah Dünyası 1987;1(12):13–5.
- Uner HB, Çakır I, Karayel M, Çakan H, Özaslan A. They are really dangerous: Blank Firing Pistols. Proceedings of 2nd Congress of the Balkan Academy of Forensic Sciences; 2004 June 3–6: Serres, Greece. Istanbul, Turkey: Balkan Academy of Forensic Sciences, 2004.

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