

Commentary on: Telmon N, Allery J-P, Scolan V, Rougé D. Fatal cranial injuries caused by an electric angle grinder. *J Forensic Sci* 2001;46(2):389–391.

Sir:

We would like to point out what could be an inconsistency among certain figures in the above report, and suggest that additional information could clarify the mechanism of injury the authors described.

Typical angle grinders, such as shown in Fig. 1, allow two configurations for the hilt. In that figure, the hilt is shown to be in a right-hand configuration, i.e., such that normal use of the angle grinder requires the hilt to be held by the operator's right hand. The hilt could also be positioned on the other side of the grinder, depending on the operator's preference or due to limitations on the accessibility of the location to be reached by the grinding wheel. To visualize the hilt in a left-hand configuration, we may also consider a laterally reversed (mirror) image of Fig. 1.

The right-handedness of the hilt configuration in Fig. 1 is consistent with the depiction in Fig. 6 of an operator holding the angle grinder in working position. On the other hand, it appears to us that the photograph, in Fig. 2, of the actual angle grinder used by the deceased subject suggests a left-hand configuration of the hilt, for the following reasons.

- (1) In Fig. 2, there appears to be a metal bolt-piece screwed in the left-hand hilt receptacle, while the right-hand receptacle appears empty. No details are provided regarding the nature of the hilt breakage, but from the photograph we surmise that the bolt-piece would be part of the unbroken hilt, and that breakage of the hilt means separation of the main body of the hilt from the bolt-piece.
- (2) The angle at which the half-circular grinding wheel protector is adjusted on the angle grinder as used (Fig. 2) is consistent with a left-hand configuration of the hilt, in the sense that the protector is adjusted in such a way as to offer protection to the hand holding the hilt only if the hilt would be set in left-hand configuration.

If our observations are correct, Fig. 1, although showing a possible configuration of an angle grinder, would be misleading in this context, and Fig. 6 would show a lateral reversal of what the authors intended to depict.

We considered the possibility that the photograph in Fig. 2 may have been reversed in the process of publication, which would account for the apparent inconsistency described above, but the lettering on the body of the angle grinder, which does not appear reversed, led us to discount this possibility. As for Figs. 1 and 6, we have no means of determining if they have been reversed.

We would suggest that this apparent inconsistency could be resolved by providing details regarding the nature of the hilt breakage. Presumably, part of the hilt may have remained screwed in the body of the angle grinder after breakage. This part could have been the bolt-piece we mentioned, or some other piece not visible in the photograph (Fig. 2) that could be located by inspection of the actual device.

Regarding the mechanism of injury described and depicted in Fig. 6, the authors have not excluded the possibility that the hilt might have been broken as a consequence of the entire device being dropped on the floor following injury. Also, we found Fig. 6 unclear in that it does not show the half-circular protector, whose setting may pose restrictions on the particular hand motions that could result in injuries such as those observed.

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