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ACCEPTED MANUSCRIPT

Pistol bullet deflection through soft tissue simulants

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Highlights:

- Pistol bullets fly straight-on when going through less than 10 cm of soft human tissue
- Pistol bullets deviate from their path after going through more than 10 cm of tissue
- Whether or not pistols bullets enter tissue at an angle might influence deviation

Abstract

Trajectory deflections of pistol bullets from four different firearms, fired through soft tissue simulants under two different incidence and exit angles were studied. The data from this study can be used in reconstructions of shooting incidents where human soft tissues (not bones) were perforated with pistol bullets and assumptions must be made about bullet deflection in order to correctly reconstruct trajectories. The results demonstrate that deflection was influenced by the length of the "wound channel" through the simulants. In short, deflection was small to virtually absent with 5 and 10 cm channel

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