

## POSTER 64

## Communication with victims by forensic professionals

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## Resumo

**Introduction:** Interpersonal communication is the basis for the development of societies [1]. With regard to communication with victims, due to its complexity, there are factors that condition it, generating doubts about strategies to be adopted. **Objectives:** This literature review aims to obtain the state of the art regarding communication with victims by professionals with forensic skills. **Methods:** A PubMed® search was performed for articles published between 2018 and 2021, using keywords AND, OR connectors and truncations for greater reach. Suggested articles were integrated during the research because they were inserted in the theme under analysis. **Results:** Interpersonal communication is a priority competence for the good patient-patient relationship [1]. The cultural diversity, emotional state and

sex of the professional arise as obstacles to circumvent in forensic examination and interview, given that the professional addresses a vulnerable person due to a traumatic experience [2]. Strategies such as training request for consent for each practice and a cozy physical space appear as useful to avoid secondary victimization [3]. Training is essential, as in the case of mock interviews (forensic interview in hypothetical scenarios) to avoid contamination of reports [4]. **Conclusions:** The scarcity of investigation on the subject makes it difficult for professionals to seek resources in complex forensic cases. The training of forensic professionals with specific training in forensic communication skills, as is the case with clinical communication, would be an important contribution to improving trauma-informed care for victims.

**Keywords:** communication skills; forensic interview; second victimization; victims; guidelines.

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## POSTER 65

## Cocaine-induced acute myocardial ischemia: a forensic autopsy case report

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## Resumo

**Introduction:** Approximately half of cocaine is metabolized into two major metabolites by plasma and liver cholinesterases into its metabolites (ecgonina methyl ester and benzoylecgonine).[1,2] Cocaine's primary effect is blockade of norepinephrine, serotonin and dopamine reuptake, leading to stimulation of the sympathetic

nervous system and consequently tachycardia, hypertension and increased myocardial contractility, leading to increased myocardial oxygen demand.[1,2,5] Cocaine also enhances coronary spasm/vasoconstriction and platelet aggregation/thrombosis, leading to reduced myocardial oxygen supply.[1-3, 5] Imbalance between

oxygen demand/supply results in myocardial ischemia/infarction.[2,5] Moreover, cocaine causes endothelial injury, contributing to accelerated coronary atherosclerosis in long-term users.[1-4] Individuals with mild coronary disease may be predisposed to occlusive vascular spasm at the site of early atherosclerotic lesions.[1] Cocaine also blocks sodium/potassium channels, that may induce cardiac arrhythmias [2,4], which can be manifested with or without myocardial ischemia/infarction.[4] However, cocaine-induced myocardial ischemia/infarction provides a potential substrate for arrhythmias. Acute coronary events usually occur within minutes to hours after consumption [2,4], the risk being higher in the first 60 minutes after intake.[5] **Case report:** an otherwise healthy 39-year-old male, with history of cocaine consumption, suddenly collapsed at home. He was submitted to advanced life support, which was unsuccessful and was pronounced dead at the scene. Forensic autopsy revealed: cerebral edema; normal sized and rounded apex heart, with no apparent macroscopic changes of the

myocardium; coronary atherosclerosis (<25% of lumen obstruction); and petechial pulmonary hemorrhage with pulmonary edema and congestion. Histological examination revealed cardiac hypertrophy, signs of acute myocardial ischemia (4-12 hours of estimated time) and coronary atherosclerosis (lumen obstruction of 50%) with unstable plaques. Toxicological analysis revealed the presence of cocaine (levels above 4000 ng/ml) and its metabolites ecgonina methyl ester ( $619 \pm 188$  ng/ml) and benzoylecgonine (levels above 4000 ng/ml). **Discussion/Conclusion:** the direct cause of death was listed as acute myocardial ischemia caused by cocaine intake, in a victim with mild coronary atherosclerotic disease and unstable plaques diagnosed histologically. Mechanisms of acute myocardial ischemia resulting from cocaine intake are multifactorial: increased myocardial oxygen demand (increased heart rate and blood pressure), decreased blood flow (vasoconstriction, platelet aggregation/thrombosis, accelerated atherosclerosis) and/or cardiac arrhythmias.

**Keywords:** forensic autopsy, sudden death, cocaine, acute myocardial ischemia

### Keypoints:

Cocaine and its metabolites stimulate the sympathetic nervous system, leading to cardiotoxicity.

- The mechanisms of acute myocardial ischemia from cocaine intake are multifactorial.
- Acute manifestations of cocaine intake can occur within minutes to hours after its consumption.

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## POSTER 66

### Revisão literária de casos práticos resolvidos pela escrita manual, linguística forense e métodos computacionais

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### Resumo

**Introdução:** As Ciências Forenses (CF) são essenciais na resolução de casos criminais contemporâneos, embora

tenham sido aplicadas também a casos históricos [1]. Dentro desta área multidisciplinar, a Escrita Manual