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Data Article

Q1 Data on ethyl glucuronide and cocaethylene
 Q2 concentrations in the hair of cocaine users

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ABSTRACT

We present data on ethyl glucuronide and cocaethylene concentrations from the hair of cocaine users. Head hair from 64 subjects, previously tested for cocaine, cocaethylene, benzoylecgonine and anhydroecgonine methyl ester (AEME), were subsequently analysed for Ethyl Glucuronide (EtG). Samples were prepared by solid phase extraction and analysed using gas chromatography coupled to tandem mass spectrometry. The dataset is made available to allow analysis of possible correlation between cocaethylene and ethyl glucuronide or between other metabolites presented in the data.

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Specifications table

Subject area	Chemistry
More specific subject area	Forensic toxicology
Type of data	Table, figure
How data was acquired	Head hair samples were analysed using gas chromatography coupled to tandem mass spectrometry to acquire identification and concentration of alcohol and cocaine metabolites.
Data format	Analysed

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55	Experimental factors	<i>Hair sample length, hair preparation and analysis methodology is consistent throughout.</i>
56	Experimental features	<i>Hair samples from 64 subjects were previously analysed for cocaine, cocaethylene, benzoylecgonine and anhydroecgonine methyl ester (AEME). The same hair samples were subsequently tested for ethyl glucuronide (EtG) to allow observation of possible correlation between cocaethylene and EtG.</i>
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61	Data source location	<i>TrichoTech Ltd, Cardiff, U.K.</i>
62	Data accessibility	<i>Data is with this article</i>
63	Related research article	<i>n/a</i>
64		
65		

Value of the data

- Data is provided from 64 subjects showing cocaine, cocaethylene and other metabolite concentrations in head hair, alongside ethyl glucuronide concentrations from the same hair section.
- Trends and positive / negative correlation may be evaluated from the data.
- Data provides insight into the range of concentrations that may be observed in hair for the detected compounds.

1. Data

Data were obtained from TrichoTech Ltd for hair samples from 64 subjects previously analysed for cocaine, cocaethylene, benzoylecgonine and anhydroecgonine methyl ester (AEME). The same hair samples (B samples) were subsequently tested for ethyl glucuronide (EtG) to allow observation of possible correlation between cocaethylene and EtG. A dataset of hair concentrations for these drugs and metabolites is presented (Figs. 1 and 2 and Table 1).

2. Experimental design, materials, and methods

Hair samples from the 64 subjects were split lengthways, into two samples, creating an A and B sample. Sample A then continues through the testing procedure whilst sample B, which is identical in length and weight, remains sealed and is stored in case a sample needs to be re-analysed.

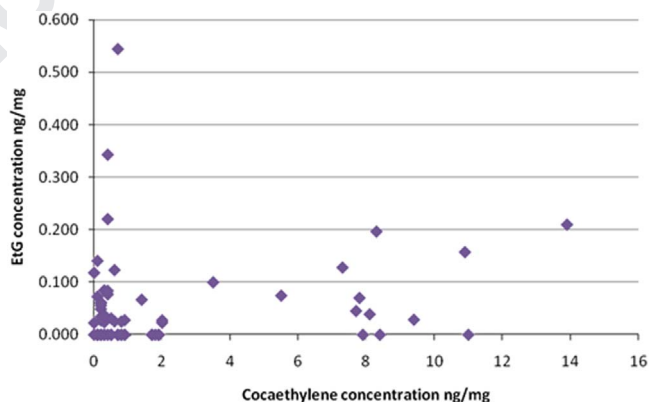


Fig. 1. Cocaethylene concentration versus EtG concentration in 64 hair samples.

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