

Have analysis. the other side of the moon

Pensavo fosse MDPV, ed invece...

F. Vaiano, L. Scuffi, L. Losso, J. Rubicondo, C. Trignano, E. Bertol

Pensavo fosse MPDV, ed invece...



Vincent Vega,
41 anni

Sintomi manifestati

Panico, tachicardia e
dolore toracico della durata di 30'

Dichiarava

Assunzione di **cocaina**.
Credeva gli fosse stato somministrato **MDPV**

Campioni biologici

Sangue, urina
(tempo trascorso: N.D.)

Le analisi tossicologiche

Analisi «mirata»

GC-MS

Principali sostanze stupefacenti



	Sangue ng/ml	Urina ng/ml
Cocaina	3,65	31,26
Benzoilecgonina	51,15	555,49
Ecgoninametilestere	6,27	370,48
Cocaetilene	1,71	2,69

Untargeted, Screening

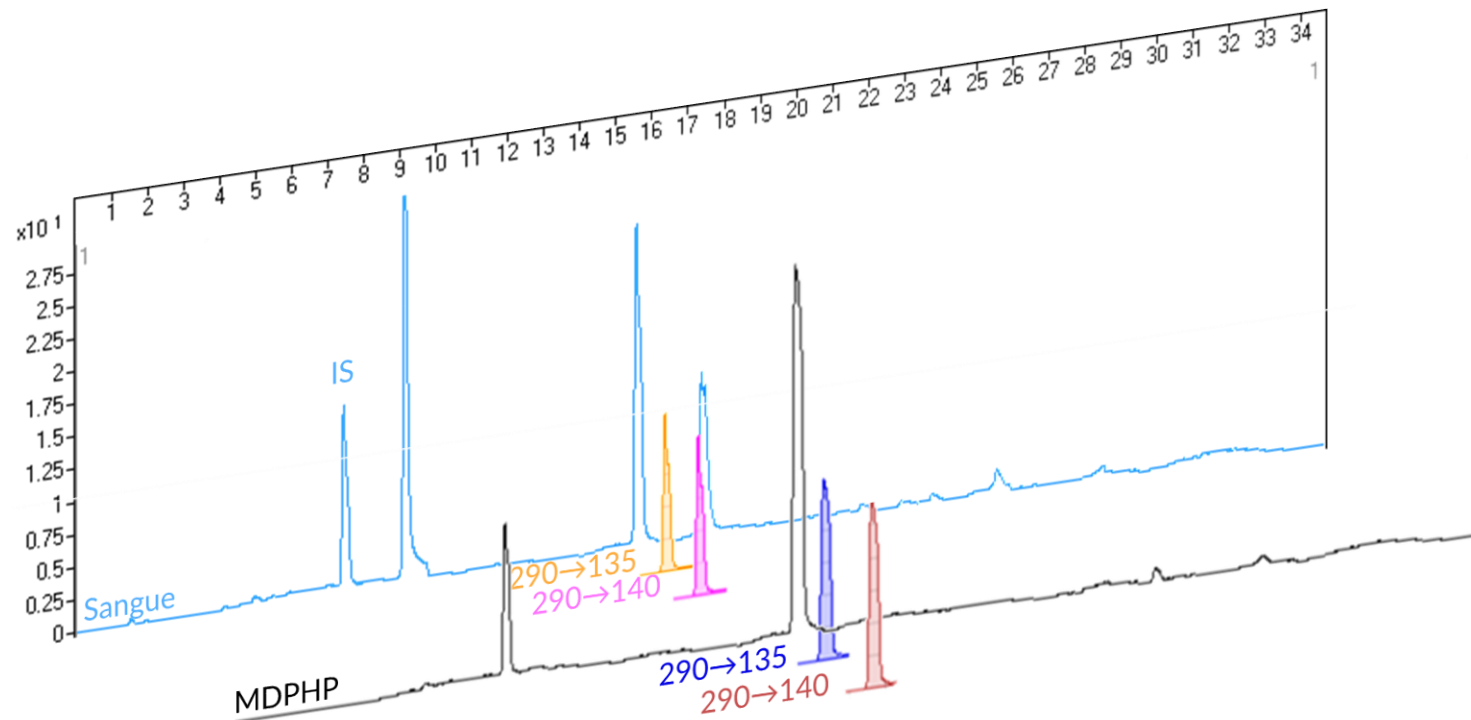
GC-MS

General unknown

LC-MS/MS

Screening: 169 sostanze
(120 NSP)

ed invece...



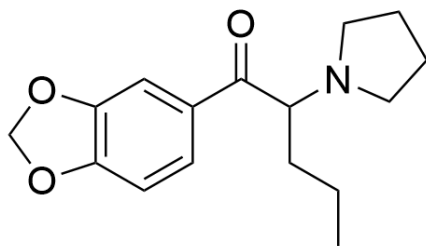
MDPHP

Sangue
ng/ml

48,07

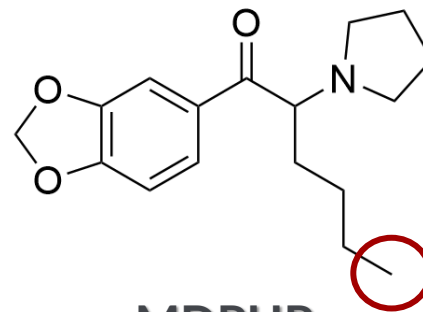
Urina
ng/ml

8.769,60



MDPV

(3,4-metilenediossi-pirovalerone)

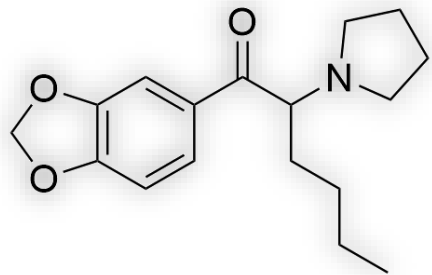


MDPHP

(3,4-metilenediossi- α -pirrolidinoesanoftenone)



Maggiore inibizione
Rispetto all'MDPV
verso i DAT e SERT



MDPHP

Catinone sintetico
Tabella I DPR 309/90

Effetti:

Stimolante SNC, agitazione, cardiopalmo, allucinazioni

Sequestri

N. 11 segnalazioni

Intossicazioni

N. 5 casi da novembre 2011

Dichiaravano di aver assunto **MDPV**

1 Tentative identification of the phase I and II metabolites of two synthetic cathinones, **MDPHP** and α -PBP, in human urine.

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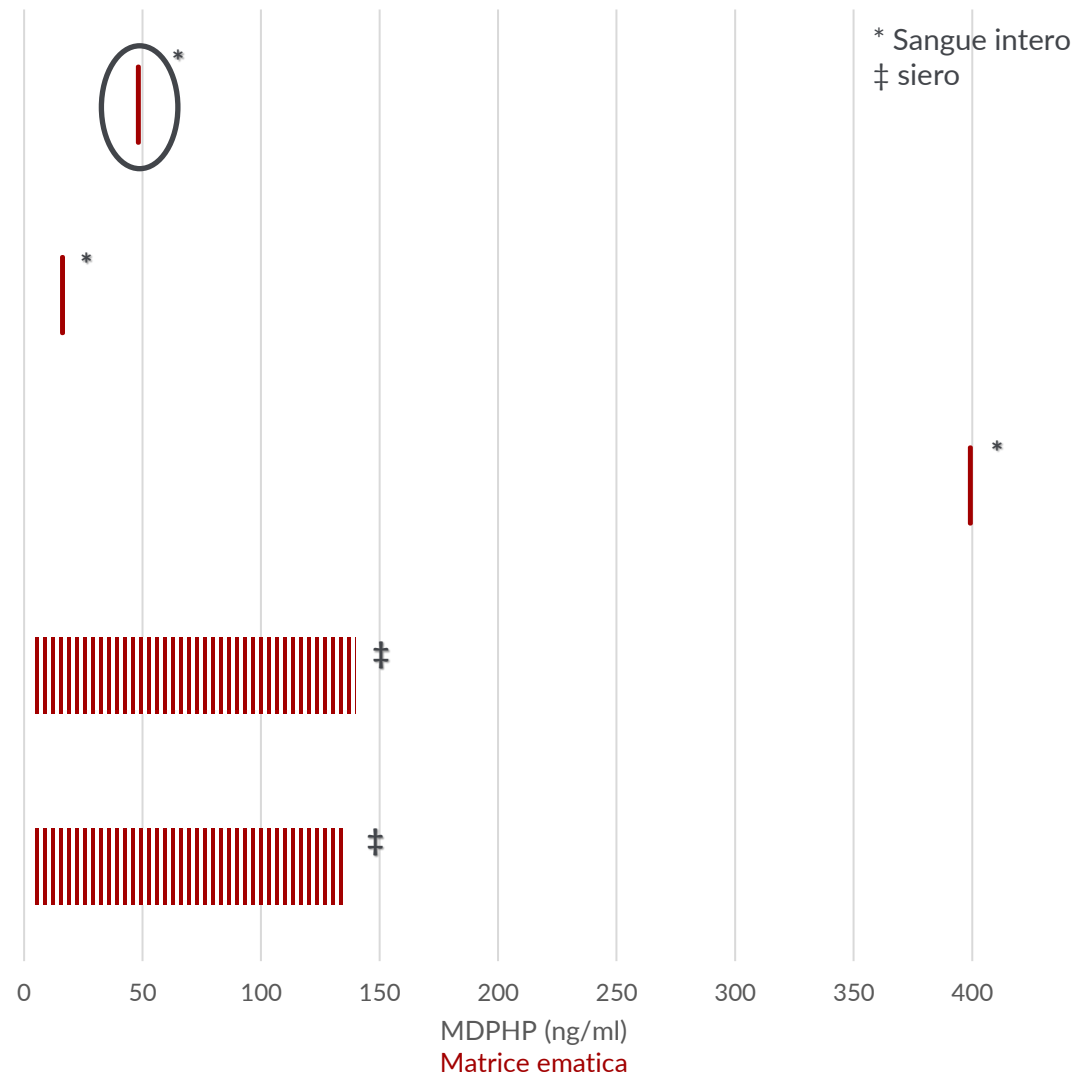
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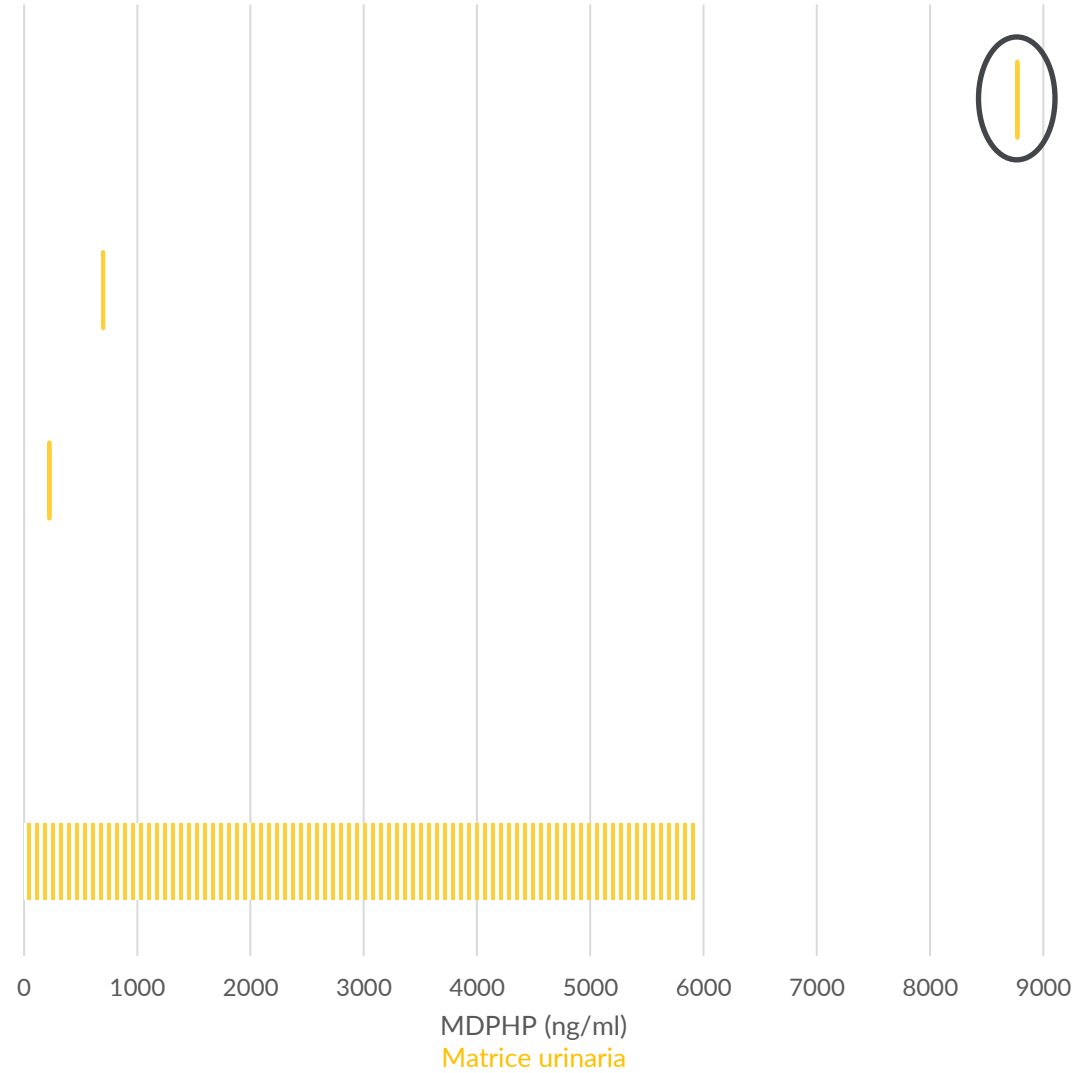
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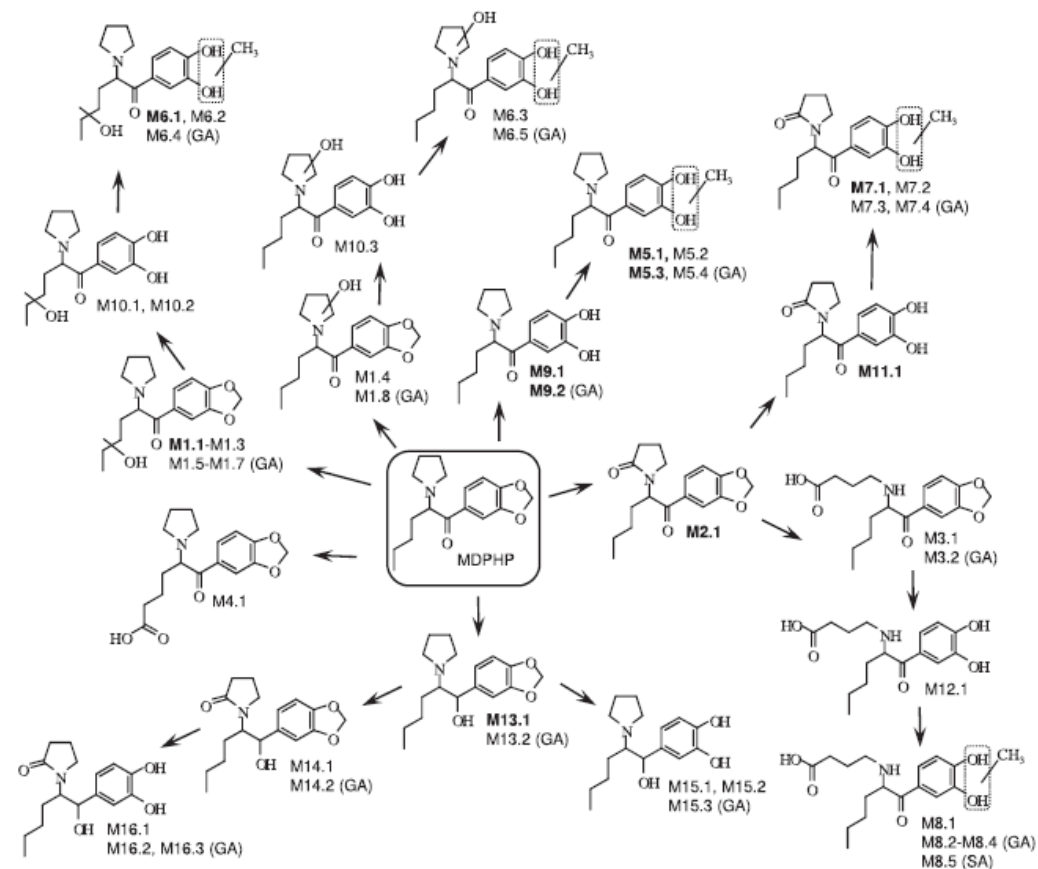
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Condizioni sperimentali HPLC-HRMS(/MS):

HPLC → Dionex 3000

HRMS → Thermo LTQ Orbitrap, ESI

Colonna → Zorbax Eclipse Plus C18 (100x2,1 mm, 3,5 μm)

Parametri ESI:

voltage → 4,8 kV

Capillary → 18 V

Tube lens → 66 V

MS:

Risoluzione → 30000 @ 400 m/z

MS/HRMS:

Isolation windows → 2,8 mu

CID CE → 35%

Risoluzione → 1500 @ 400 m/z

Trattamento campioni*:

Sangue ed urina:

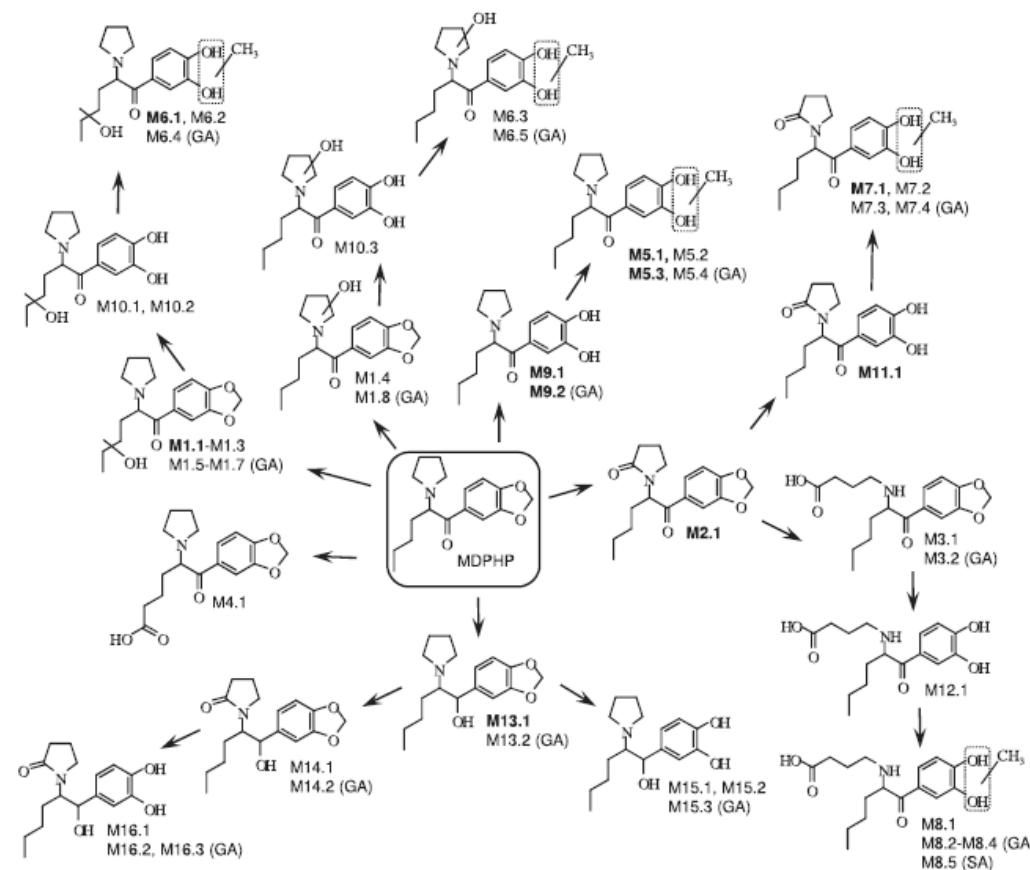
LLE con EtO₂/AcOEt 1:1 x 2 (neutro e NaOH 1M)

Urina:

Idrolisi con β-glucuronidasi (60', 48°C)

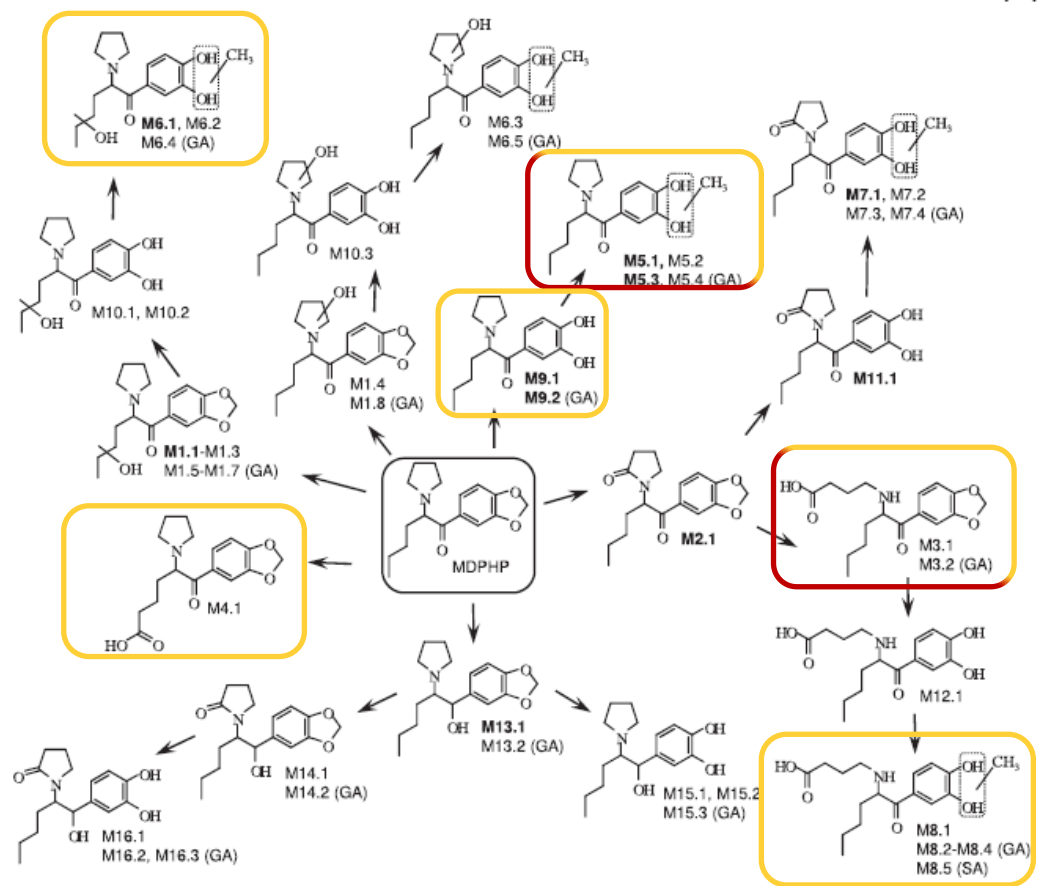
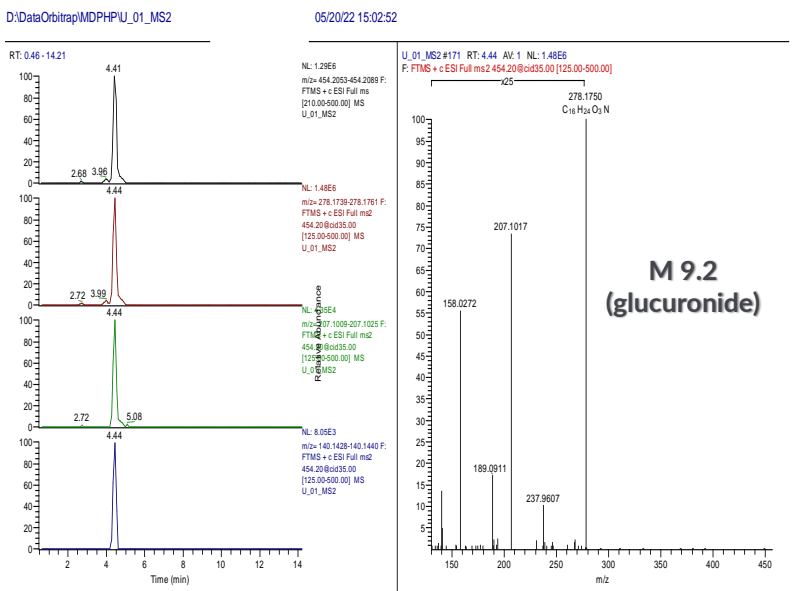
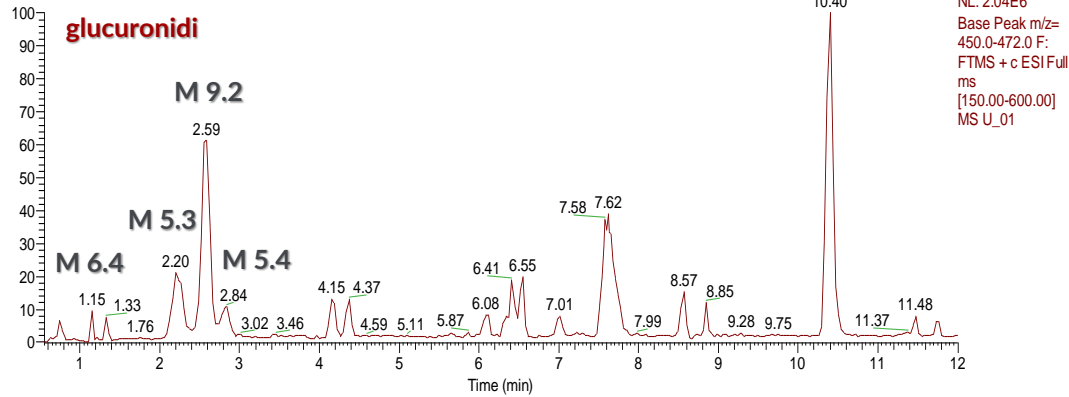
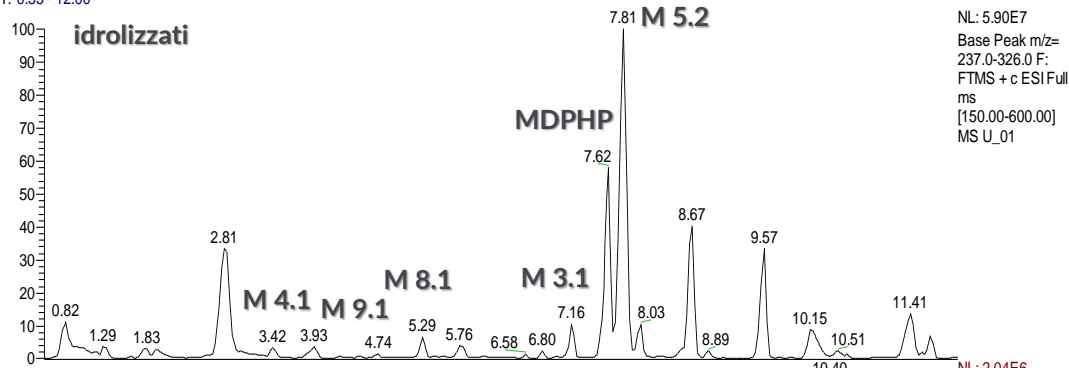
Ringraziamento: Dr Giuseppe Pieraccini, Dr Riccardo Romoli, Dr Francesca Boscaro

Metaboliti



* Grapp et al.

RT: 0.55 - 12.00



To be continued...

Pensavo fosse MPDV, ed invece...

PARTE II



Jules Winnfield,
28 anni
Consumatore di MDPV

Sintomi manifestati

Forte stato di agitazione
Rabdomiolisi

Dichiarava

Assunzione di **MDPV** in ambito di chemsex
«Effetto più forte»

Campioni biologici

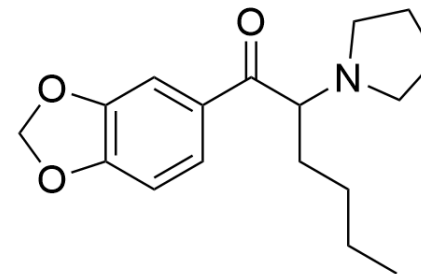
Sangue, urina
(~10 ore dall'assunzione)

Pensavo fosse MDPV, ed invece...

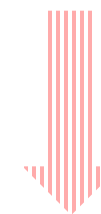
PARTE II



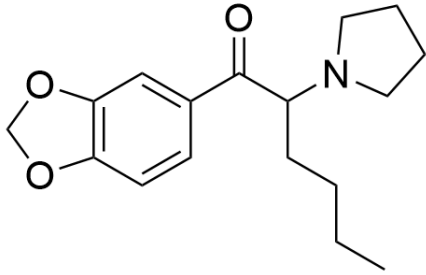
Jules Winnfield,
28 anni
Consumatore di MDPV



MDPHP



Sangue ng/ml	Urina ng/ml
1,26	172,05



Rilevazione | Rilevazione di MDPHP in due casi di intossicazione

Strategia analitica | Importanza di avere un approccio analitico ad ampio spettro

Collaborazione | Fondamentale la collaborazione tra Istituzioni (ISS, vedi SNAP) e centri ed aziende ospedaliere (CISM, AOU-Careggi)

ALLERTA | Circolazione di MPDV contraffatto???