amine and atomoxetine prescribed for ADHD in Cases 1 and 3 may have exacerbated an underlying natural heart disease despite the concentrations of both drugs being within therapeutic range. Case 2 shows levels from an obvious suicide, supported by the extremely high venlafaxine concentrations. It is doubtful if the two drugs lead to each other's toxicity since each were present at concentrations far exceeding therapeutic ranges and would likely have been lethal by themselves. Although both atomoxetine and venlafaxine utilize CYP2D6 in their metabolism, neither one is a potent inhibitor of the isoenzyme and, therefore, probably did not cause any significant drug–drug interactions.

The low V_d is reflected in the relatively low liver concentrations found in the therapeutic cases and indeed even the overdose case. Despite atomoxetine having a low volume of distribution, it appears it may undergo postmortem redistribution. Utilizing the reported values in the literature (4) in addition to those in the presented cases, atomoxetine displays central-to-peripheral ratios of 0.08/0.04, 1.3/0.23, 0.65/0.33, and 8.3/5.4 (range: 1.5–5.6). The overdose case, which had a significant concentration of atomoxetine in the gastric contents, only showed a central-to-peripheral ratio of 1.5, apparently ruling out diffusion from the stomach. There is always the possibility, however, that the peripheral samples were contaminated by central cavity blood, a problem that is inevitable in nonstandardized blood draws during autopsy. Additionally, variations in the postmortem interval can affect the concentrations observed in blood specimens and must be borne in mind. The vitreous concentrations, not surprisingly, are the lowest since the drug is highly plasma protein bound and would be less able to cross the cell membranes before it becomes extensively metabolized. Concentrations in the bile are higher than blood and because the majority of atomoxetine is eliminated in the urine in the form of polar and conjugated metabolites this suggests enterohepatic recirculation and subsequent renal excretion.

In conclusion, atomoxetine is being detected in medical examiner cases, not surprisingly because it offers a nonstimulant alternative to drug therapy for ADHD, and although it is usually an incidental finding in death investigations, it is useful to know what tissue concentrations to expect in both therapeutic and overdose situations. Atomoxetine can be considered nontoxic at whole blood and liver concentrations below 1.3 mg/L and 5 mg/kg, respectively. Atomoxetine may undergo postmortem redistribution with a central-to-peripheral ratio ranging from 1.5–5.6.

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Additional information and reprint requests:
Diana Garside, Ph.D., DABFT
Office of the Chief Medical Examiner
1001 Brinkhous Bullitt Building
Chapel Hill, NC 27599-7580
E-mail: dgarside@ocme.unc.edu