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Narcotic Abuse Among Homicide Victims in Detroit

During the year 1973 the city of Detroit, Mich. obtained nationwide recognition for its alarmingly high homicide rate. Detroit has a population of 1.5 million, and recorded 751 homicides in 1973. Wayne County, in which Detroit is located, recorded 821 homicides for its population of 2.7 million. Detroit, therefore, constitutes approximately one half of Wayne County on a population basis, but accounted for more than 90% of the homicides in that county in 1973.

The toxicology laboratory at the Wayne County Medical Examiner's Office has undertaken a study of the presence of narcotics in some of these homicide victims. These data will be presented and discussed.

Sample Selection and Methodology

Since it is generally accepted that narcotic addiction is rarely a problem beyond 35 years of age, homicide victims 35 years of age or less were selected for this study. Bile and urine samples were submitted to the laboratory for analysis.

Spectrophotofluorometry [1] and thin-layer chromatography [2] were employed for the identification of morphine and quinine. Other organic bases, primarily amphetamine, methadone, meperidine, propoxyphene, cocaine, phencyclidine, and codeine, were identified by thin-layer and gas chromatography.

Results

Appropriate instrumentation was not available in the laboratory for the entire year 1973; consequently, the data obtained for this study were accumulated during the period 2 July through 17 Sept. 1973. During this time, 207 homicide cases were analyzed for narcotics and related drugs.

Table 1 summarizes the cases studied according to race and sex. The majority of the victims were black (89.4% of total), with a ratio of male to female of 5:1. The percentage of white homicide victims in this study was 11.6, with a male to female ratio of 6:1.

Table 2 summarizes the incidence of alcohol in the cases studied. Approximately one in every three persons was consuming ethanol prior to death. The percentage of white females consuming ethanol is misleadingly high, due to the small sample population of

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TABLE 1—*Homicide victims in narcotic study according to race and sex.*

Sex	Black	White
Male	153	17
Female	32	5
Total (207)	185	22

TABLE 2—*Incidence of ethanol in homicide victims in narcotic study.*

Subject	Cases	Cases with Ethanol	% with Ethanol
Black male	153	47	30.7
Black female	32	5	15.6
White male	17	6	35.3
White female	5	3	60.0
Total	207	61	29.5

this group. For the total homicide victims (821) in Wayne County in 1973, 52% had been consuming ethanol prior to death.

Old and recent needle tracts (Table 3) were observed at postmortem examination on one out of every three homicide victims. Black males accounted for the majority of cases studied and this group also had the highest incidence of needle tracts. The incidence of needle tracts was comparable in the black female and white male populations. White females accounted for only a small percentage of the cases studied, and no needle marks were observed in any of those cases.

Of the 64 persons who had needle tracts, 48 (75%) had a drug indicative of narcotic usage. Probably the most significant factor affecting this result is the time period which

TABLE 3—*Incidence of needle tracts in homicide victims in narcotic study.*

Subject	Cases	Cases with Needle Tracts	% with Needle Tracts
Black male	153	55	36.0
Black female	32	6	18.8
White male	17	3	17.6
White female	5	0	0.0
Total	207	64	30.9

elapsed between the last injection and death. The presence of only old needle tracts suggests that a person has not used narcotics in the recent past; therefore, the concentration of the narcotic in the bile or urine would be below the limit of detection of the methodology employed, and a negative result would be obtained in the laboratory. Positive findings in the laboratory were obtained in 26 cases where needle tracts were not observed at postmortem examination. All of these data are summarized in Table 4 according to narcotic(s) found. The incidence of needle tracts and ethanol also is included. Not included in these results is one case in which amphetamine was found and another case in which methaqualone was found. Barbiturates in all 207 cases were negative.

TABLE 4—*Correlation of narcotics, needle tracts, and ethanol in homicide victims who contained a narcotic.*

Narcotics Involved	Cases	Cases with Needle Tracts	Cases with Ethanol
Morphine	33	17	5
Morphine + quinine	21	19	2
Morphine + methadone	2	2	0
Morphine + methadone + quinine	4	3	1
Morphine + cocaine	1	0	0
Morphine + codeine	1	0	0
Methadone + quinine	2	0	1
(Quinine)	10	7	4
Total	74	48	13

Morphine was the drug most frequently detected among these homicide victims (see Table 4). Of the 74 victims who had a drug in their system at the time of death, 62 (83.3%) had morphine. This is evidence that either heroin or morphine was the drug used. Quinine alone was found in ten victims. At best this is only presumptive evidence that heroin was used, but seven of these ten victims also had needle tracts. The one case where codeine and morphine were found together might not indicate narcotic abuse, since morphine is the metabolite of codeine, and codeine may have been ingested for therapeutic purposes. In addition, no needle tracts were observed in this particular case.

Discussion

Since the majority of victims in this study were black males, one must try to determine if perhaps some statistical bias has affected the results. This is achieved by comparing the populations (in terms of race and sex) of the groups on which narcotics analysis was done with the entire population of homicide victims in 1973. This comparison is shown in Table 5, and it is seen that the percentages of the various groups selected for this narcotics study parallel reasonably well the percentages of all the homicide victims in 1973. Therefore, one may assume that, in terms of race and sex, the population selected for this study proportionally represents the entire population of homicide victims in 1973. It may be of interest to note that during the first eight months of 1973, 82% of the homicide victims in Detroit were black, as were 87% of the known assailants.

TABLE 5—*Comparison of race and sex of homicide victims included in the narcotic study with all homicide victims for the entire year 1973.*

Subject	% in Narcotic Study	% of Entire Year
Black male	73.9	66.4
Black female	15.5	13.8
White male	8.2	14.1
White female	2.4	2.1

The question that one would like to answer is "How many of these victims were murdered because of their involvement with narcotics?" This is an important question, both from the standpoint of law enforcement and the general concern of society with this dilemma. The "correct" answer to this question is very difficult to obtain, but different approaches to the problem have been suggested.

Law enforcement officials have a simple approach to the problem. Their definition of a "narcotics-related" homicide is one in which a person is found murdered in a narcotics pad or under circumstances which indicate involvement with drugs beyond any doubt. This is a limited viewpoint, as it does not include those people killed by addicts in robberies, nor do such criteria allow for the many homicides in which drugs are a definite factor, but where their significance is not immediately apparent. Using police criteria, however, it is estimated that 11% of the homicides in Detroit in 1973 were narcotics related.

The Medical Examiner's Office looks at the problem from a wider perspective. In the population selected for this study, 43% of the homicide victims were directly involved with narcotics as users. This figure is obtained by adding the percentage of the victims who had needle tracts (31%) to the percentage of the victims who had no visible needle tracts but did have a narcotic in their system at the time of death (12%). The sum of these two figures accounts for almost one half of the homicide victims in this study. Employing the analogy that in a traffic accident there is usually an underlying reason for the accident (ethanol in 50% of these fatalities), one may assume too that there must be an underlying reason (possibly involvement with narcotics) for the murder of a narcotic user.

It must be realized, too, that narcotics pushers and dealers would not be included in the above statistic. Although these people are very much involved with narcotics traffic, they are rarely also users. Therefore, no needle marks would be detected at postmortem examination and no drugs would be found in their systems at the time of death. Narcotics might also go undetected in "snorters," because when a narcotic is inhaled the resulting concentration in body fluids is relatively low. Therefore, it may be concluded that at least 43% of the homicide victims were direct users of narcotics, but the total number of homicide victims who may have been involved with narcotics in one capacity or another could be much higher—possibly 60 to 70%.

An investigation into the nature of the homicides helps substantiate the above statement. "Execution" deaths, such as a close-range gunshot wound behind the ear, or where the victim is bound and gagged, suggest a premeditated homicide. Slightly less than 8% of the homicide victims in 1973 died in this manner. It is well known that this is a common method for the elimination of undesirables in the narcotic business.

Another type of homicide frequently associated with the drug traffic is one in which a person is killed while committing a robbery. Significant amounts of money are necessary to support a narcotic habit, and addicts often commit crimes to obtain such money. Five percent of the homicide victims in 1973 were killed while either actually committing a robbery or in an attempted breaking and entering.

The final factor which should be considered is alcohol. It is well known that alcohol and homicides are related statistically. Fifty-two percent of the homicide victims in Detroit were consuming alcohol prior to their death. In fact, this figure correlates well with the national statistic. When one compares the homicide victims using narcotics, however, only 18% of these victims had consumed alcohol prior to death. One can conclude that in these homicide victims alcohol plays a relatively minor role, and another factor (possibly their involvement with narcotics) is much more significant.

Summary

A record of 751 homicides occurred in Detroit in 1973. An attempt was made to explore the relationship between narcotics and a random sample of these homicides. It was demonstrated that in the group studied, 43% were narcotic users. It is suggested that if one includes pushers and dealers (possible victims of a "drug war"), people killed by addicts, and those cases where a narcotic might not be detected in the biological sample, the percentage of homicide victims associated with narcotics traffic could be as high as 60 to 70%. An investigation into the manner (executed, killed in a robbery attempt, etc) helps substantiate this suggestion. Finally, unlike the majority of homicide victims, ethanol is infrequently found in the victim using narcotics.

References

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