



## Pathology Biology Section – 2007

### G79 Child and Adolescent Victims in Forensic Autopsy: A Five Year Retrospective Study

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After attending this presentation, attendees will have a better understanding of the epidemiological features of child and adolescent victims in forensic autopsy and of the usual characteristics of homicide in the four to 19 years of age population.

Though literature on child abuse investigation of children less than three years of age is quite extensive, the data on forensic autopsy in the older population from four to 19 years of age is more limited. This presentation will impact the forensic community and/or humanity by providing data from a systematic five year retrospective study on this child and adolescent victim population in forensic autopsy.

In the province of Quebec (Canada), all forensic autopsies are performed at a centralized laboratory. During the five year period from 2000-2004, a total of 233 cases of children and adolescents deaths were autopsied in the four to 19 years of age population. Of those, the large majority of cases belonged to the 15-19 age group (139 cases), with the remaining cases equally distributed between the 4-9 and the 10-14 age groups (42 cases each).

*Child and Adolescent Victims of Forensic Autopsy:* Male victims were more frequently encountered than female ones (148 males for 75 females), this male predominance being more obvious in the 15-19 age group (male:female ratio of 23:19 in the 4-9 age group, 24:18 in the 10-14 and 101:38 in the 15-19). In this population, accident was the most frequent manner of death (44%), followed by homicide (24%), suicide (18%), undetermined (9%) and natural (4%). In the 4-9 age group, manner of death was mostly accident (57%) or homicide (37%). An important gender difference was noted in the manner of death. As a matter of fact, while male were more prone to die from accident (74%) than from homicide (17%), the opposite was observed for female (47% homicide compared to 37% accident). In the 10-14 age group, accident remained the most frequent manner of death (50%), followed by homicide (19%) and suicide (14%). Accidents are more frequent in males (58% of male victims compared to 39% of female ones) while homicide is more frequent in females (28% of female victims compared to 12% of males). In the 15-19 age group, accident was once again the most frequent manner of death (38%), though less predominant in comparison with suicide (25%) and homicide (24%). In terms of gender, the relative incidences of each manner of death were more similar in this age group.

*Homicide Victims:* In a total of 54 homicide cases (24 females and 30 males), 13 cases belonged to the 4-9 age group, 8 to the 10-14 age group and 33 to the 15-19. The two most frequent methods of homicide found were firearm and sharp force, each at 27% of cases, followed by asphyxia (23%), blunt force (20%) and intoxication (3%). The gender distribution of homicide cases in the different age groups shows a strong female predominant ratio in the 4-9 and 10-14 age groups (9:4 and 5:3 respectively), while the opposite situation was observed in the 15-19 age group (10:23). An analysis of homicide methods by age group and gender will be presented. Overall, the results for the 4-9 age group are particularly interesting, clearly demonstrating predominance of sharp force in female victims compared to asphyxia in males.

In conclusion, this five year retrospective study gives new insight in the epidemiology of child and adolescent victims in forensic autopsy as well as a better description of homicide cases distribution.

**Child Death Investigation, Adolescent Death Investigation, Forensic Pathology**