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39. Suicidal Adolescents: Examining Self-Poisonings Within the Pediatric Population

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Background: Suicide is a major public health problem in the United States and the third leading cause of death in 10–24-year-olds. Among adolescents, the lifetime prevalence of suicidal ideation and attempt is 12.1 and 4.1 %, respectively. Poisonings are a common method of selfharm encountered in the emergency department.

Objective: Characterize ingestions and outcomes in adolescents with self-harm attempts reported in ToxIC.

Methods: We retrospectively searched ToxIC cases categorized as “Intentional Self-Harm” among 13–18-year-olds. Cases reported as “Unlikely tox related” were excluded. All cases fitting criteria from creation of the database in 2010 through 11/1/2014 were included in analysis.

Results: There were 2,226 cases of toxicologic exposures in ages 13–18 years reported in ToxIC. Seven hundred eighty-three were categorized as “Intentional pharmaceutical overdoses,” with 604 subcategorized as “Attempt at self-harm.” There were 466 cases of “suicide attempt” (77.2 %), 26 cases of “No suicide intent” (4.3 %); the remaining cases were unknown or unreported. Of patients with suicide attempt, 442 (94.8 %) had signs/symptoms; 344 (73.8 %) were given toxicologic treatment, and 163 (35 %) were admitted to the intensive care unit (ICU). Among patients with no suicide intent, 25 (96.2 %) had signs/symptoms, 16 (61.5 %) required toxicologic treatment, and 7 (26.9 %) were admitted to the ICU; there were no significant differences between groups in these three categories. Patients presenting with suicide attempt were predominantly female (76.8 % vs 23.2 %, $p < 0.05$). A single agent was ingested in 276 (59.2 %) of attempts; 188 (40.3 %) cases involved multiple agents ($p < 0.05$) (data missing in two cases). The top three most commonly ingested pharmaceutical classes were analgesics, antidepressants, and anticholinergics/antihistamines, with 201, 161, and 119 exposures, respectively, in the suicide attempt group and 18, 4, and 7 exposures, respectively, in the no suicide intent group. Discussion: Females presented after attempted suicide more frequently than males, consistent with previous studies. Comparisons between suicide attempt and no suicide intent groups suggests that patients without intent have similar risk for illness severity. The most common classes of agents ingested did not differ between those with suicidal intent and those without.

Conclusion: This study describes characteristics of adolescents with toxicologic exposures. Continued research is needed to prevent pharmaceutical overdose in this population.