Victorian ED between 2015-2018. Cases were included if an ED clinician diagnosis of “anaphylaxis”, “allergic reaction” or “reaction (other)” was recorded. Outcome measures included rate of correct anaphylaxis diagnosis in terms of missed anaphylaxis diagnosis (meeting study criteria for an anaphylaxis diagnosis but clinicians did not diagnose anaphylaxis) and overdiagnosis (clinicians diagnosing anaphylaxis where diagnostic criteria were not met).

Statistical Analyses: For continuous variables, Student’s T-test was used to compare the difference between groups for normally distributed data and the Mann-Whitney (ranksum) test used for non-normally distributed data. Chi-squared or Fisher’s exact test was used to compare groups for categorical variables. Multivariable logistic regression analysis was conducted to identify independent predictors of incorrect diagnosis. Stata version 15.1 (StataCorp, College Station, Texas, USA) was used for the statistical analysis.

Results: Of 314,713 presentations to ED during the examined period, 2,294 met inclusion criteria. 551/601 (91.7%) diagnosed with anaphylaxis by clinicians met study criteria for anaphylaxis diagnosis and 274/1,693 (16.2%) were diagnosed with anaphylaxis by clinicians but met study criteria for anaphylaxis. Those meeting criteria for anaphylaxis were more likely to receive adrenaline if they received a diagnosis of anaphylaxis (89.7% compared to 80%, P<0.001). Children under 5 years were most likely to have a missed anaphylaxis diagnosis (odds ratio 3.26, 95%CI 1.6-6.6, P=0.001). Children were more likely than adults to be misdiagnosed with food anaphylaxis if they had only gastrointestinal, or gastrointestinal and dermatological features (2.3% of children compared to 0.6% of adults). Consultant physicians had a higher sensitivity for anaphylaxis diagnosis compared to junior doctors (76.1% vs. 60.2% respectively, P<0.001) with the greatest difference in diagnosis for the subgroup of children aged 0-5 years (reacting to food allergens 86.2% vs. 58.6% respectively, P=0.014).

Conclusion: In those presenting to ED for allergy or anaphylaxis, many patients with anaphylaxis are misdiagnosed and receive incomplete treatment. Awareness of different types of anaphylaxis presentations, such as those without dermatological involvement, is a potential educational opportunity to improve the rate of diagnosis.

References:

CHILD SEXUAL ASSAULT PRESENTATIONS TO A TERTIARY PAEDIATRIC METROPOLITAN HOSPITAL

Monica Hong1

Background: There is little published data on Australian children who present for forensic sexual assault examinations. It is not known what proportion of children present within the time frame as established by NSW Police for collection of forensic samples. Factors that have been reported to increase the likelihood of identifying ano-genital injuries include early examination, presence of symptoms, gender and age.

Aim: To review the timing of the examination relative to the sexual assault, presence or absence of symptoms as well as categorise ano-genital injuries using a standardised approach in children who have presented to the Child Protection Unit (CPU) for a medical assessment following a disclosure of sexual assault.

Methods: A retrospective review of all patients who were seen by the CPU in 2016 for a medical assessment following a disclosure of sexual assault was undertaken. Data including demographics and clinical details of each patient was collected. Patients were categorised as having presented either within or outside of the forensic time frame. Any ano-genital injuries on examination were categorised using Adams’ 2018 Updated Approach to Interpretation of Medical Findings in Suspected Child Sexual Abuse.

Results: In 2016, a total of 59 patients underwent a full sexual assault medical assessment following a disclosure of sexual assault. Twenty-six (44%) patients presented within the time frame for forensic collection. In this group, 5 (19%) patients had evidence of acute ano-genital injury and all 5 had presented within 72 hours of the last alleged assault. Symptoms were reported in 18 patients (69%) with the most common being genitourinary symptoms. Thirty-three (56%) patients were seen outside of the time frame for forensic collection. No ano-genital injuries were identified in this group. Fourteen (42%) patients from this group reported symptoms at the time of examination.

Conclusion: A large subgroup of children who have been sexually assaulted present outside of the forensic timeframe. In this group, the reported symptoms at the time of examination is non-specific for ano-genital injuries. In the patients who presented within the forensic time frame, all of the patients with ano-genital injuries reported genitourinary symptoms at the time of the examination. This suggests a correlation between presence of ano-genital injuries and reported symptoms among patients who present early. The importance of a prompt examination for early detection of ano-genital injuries is highlighted in this study.

References:

EVALUATING THE CLINICAL USE OF A SCREENING TOOL TO IDENTIFY PRIORITY POPULATIONS REFERRED FOR DEVELOPMENTAL ASSESSMENTS

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