

Don't wait for the second episode of Abusive Head Trauma to make the right diagnosis !

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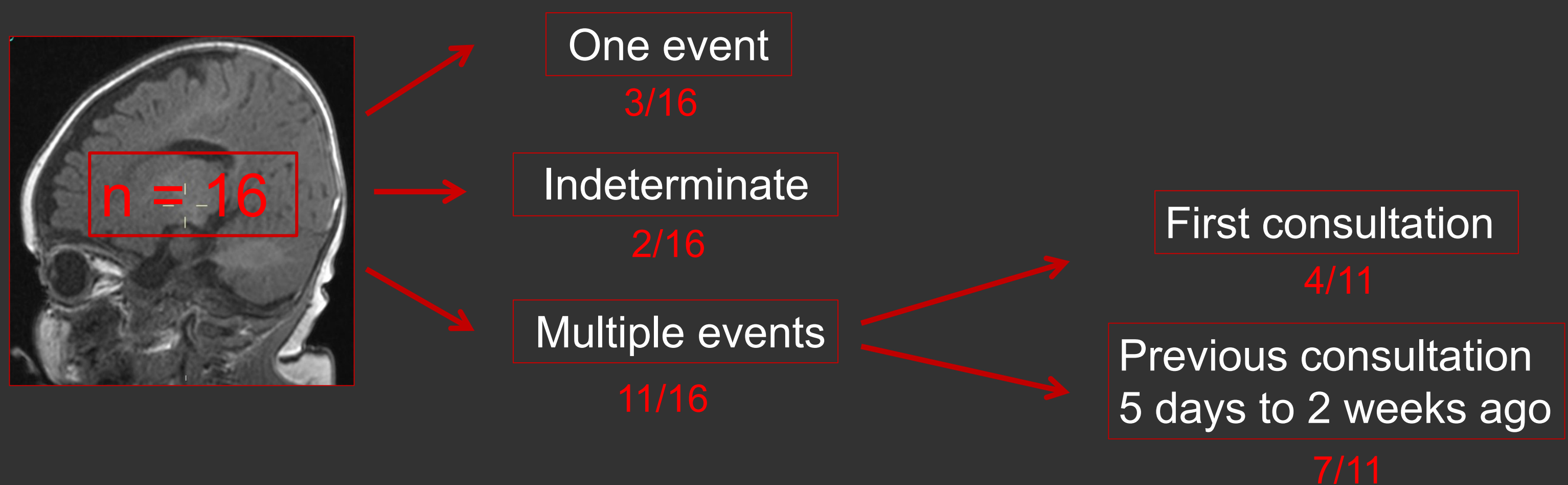
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Objective

Abusive Head Trauma (AHT) is usually considered by pediatricians as one isolated event. Nevertheless, specific literature reports that it could be preceded by other types of abuse and sometimes, by previous episodes of shaking. Our study raises the question of the frequency of such reported events and their issue when the initial diagnosis is missed.

Method

Zero to 2 year-old patients were recruited in a retrospective study at the University Children's Hospital of Lausanne between 2002 and 2013. Admission criteria included infants with the classic triad of AHT (encephalopathy, subdural hemorrhage, retinal hemorrhage) without history of accident. Signs and symptoms present at the first episode were identified and the initial diagnosis was compared to the final one in case of multiple events. Imaging was reviewed by a neuradiologist in order to determine the presence or not of haemorrhages of different age and to date cerebral bleeding.



Results

- Sixteen patients met admission criteria of AHT.
- Eleven (68%) presented imaging evidence of repeated shaking events.
- Seven out of these 11 patients (64%) underwent a previous medical visit within 2 months before the final diagnosis of AHT with **signs and** symptoms such as vomiting, irritability, decrease in alertness or haematoma.
- Diagnosis at the first visit included urinary tract infection, gastroenteritis, gastro-esophageal reflux, irritability following immunization, suspicion of intussusception or suspicion of child abuse.
- Subsequent consultation at the emergency room was motivated by recurrence of irritability and vomiting or by worsening status with altered state of consciousness, hypotonia or convulsion leading to further investigations with final diagnosis for AHT.



1 = subacute haemorrhage
2 = acute haemorrhage

Discussion

- Severity of AHT lesions is variable and initial non specific signs and symptoms may mimic common pediatric illnesses as mentioned in our series.
- This study shows that the frequency of multiple shaking events is much higher (68%) as previously assumed and that initial diagnosis is often missed by pediatricians at first consultation.

Conclusions

- Pediatricians must be aware of a possible AHT when symptoms evoking intracranial pathology occur.
- Cerebral imaging must be performed without delay in the 0 – 1 y.o. infant group.

Missing the diagnosis of AHT can lead to repeated episodes of shaking with an increasing risk of permanent neurologic damage or death.