INTRACRANIAL INJURIES ON COMPUTED TOMOGRAPHY (CT) HEAD SCANS IN INFANTS INVESTIGATED FOR SUSPECTED PHYSICAL ABUSE: A RETROSPECTIVE REVIEW OF CASES IN WESSEX

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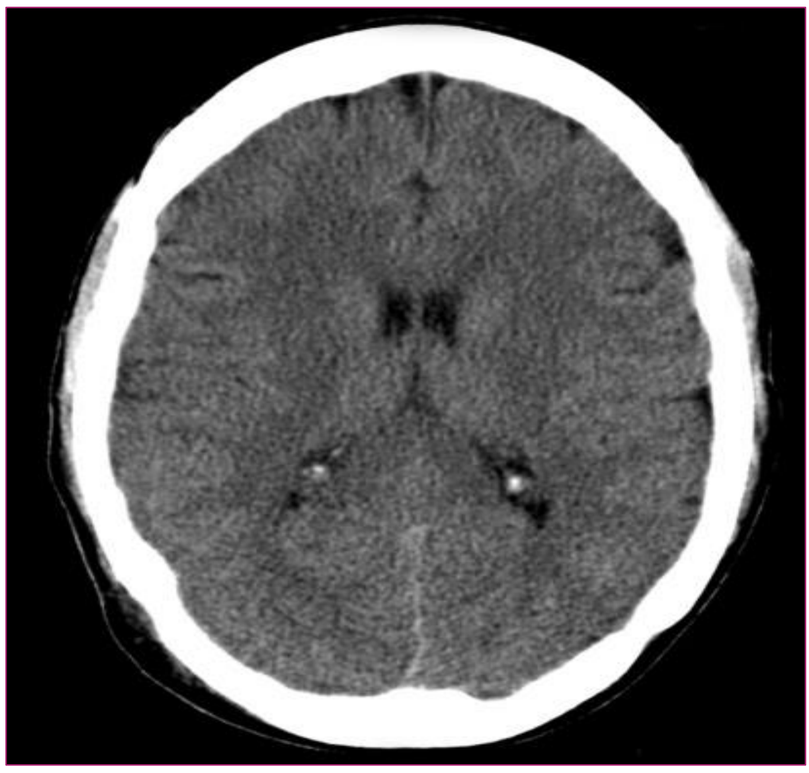
Background, Aim and Methods

- United Kingdom national guidelines recommend that investigation of infants in case of suspected physical abuse should always include computed tomography (CT) head scans.
- Such imaging carries small but recognised risks from radiation exposure.
- Studies report a range of yields for occult intracranial injuries in suspected physical abuse.
- This study aimed to report the yield of intracranial injuries on CT head scans carried out for suspected physical abuse in infants, compare yields for those presenting with or without signs of head injury, and to describe selected clinical and radiological features.
- Retrospective review of all case records for infants undergoing skeletal survey for suspected physical abuse in Wessex between January 2013 and December 2018.



Results & Conclusions

- In total, *n* = 363 CT head scans of infants were included.
- Overall yield of intracranial injury on CT head scan was 37 (10%).
- Amongst 68 infants presenting **with** neurological signs or skull fractures, yield was 36 (**53%**).
- Amongst 295 infants **without** neurological signs or skull fractures, yield was just 1 (**0.34%**).
- This one injury was found to be consistent with an accidental fall.
- Scalp injury was the only additional clinical feature associated with intracranial injury.

We conclude that in suspected physical abuse, CT head scans should be carried out in infants who present with neurological signs, skull fractures or scalp injuries. However, in balancing potential risks and benefits, we question the value of performing a CT head scan in every infant investigated for suspected physical abuse.