Has the 2013 Royal College Guidance improved the documentation of ocular findings in infants under investigation for unexplained head injury: a follow up audit.

R Sadia, A Okonkwo, W D Newman
Manchester Royal Eye Hospital, UK

Manchester Royal Eye Hospital

Introduction:

Non-accidental head injury is the leading cause of severe neurological morbidity and mortality in childhood, with an annual incidence of inflicted head injury of 24.6 per 100,000 children under the age of 1 year; the median age at admission is just over 8 weeks and is less frequently seen in children over 3 years of age.

Paediatricians refer a child suspected of abusive head injury to an ophthalmologist for evaluation. These infants often have a constellation of injuries, including bruising and skeletal fractures as well as intracranial and ocular injury. However, controversy remains concerning the small number infants with no evidence of external trauma and no skeletal abnormality but in whom retinal and intracranial haemorrhage are present. In the presence of head injury without any plausible medical explanation, the retinal findings and description helps distinguish between abusive injury and other causes as retinal haemorrhages have a high positive predictive rate for an abusive head injury. This has resulted in increasing requests from courts for detailed reports from treating ophthalmologists and commissioning expert witness reports on ophthalmic findings.

Review data presented as poster in 2009 RCOphth Congress demonstrated the inadequacy of recording the clinical findings of examinations in suspected abusive head trauma cases and recommended use of standardised recording sheet. In 2013, the RCOphth published guidelines [1] with detailed examination methodology and recommended a proforma recording sheet.
Here we compare the adequacy of recording the ocular findings against RCOphth guidelines.

Method:

Retrospective review of anonymised ophthalmology records of 20 consecutive cases of suspected abusive head injury from 2019, in which one author (WN) was commissioned to provide an expert witness report for Family Court proceedings. The presence or absence of the same 13 items of information considered the minimum data set from the 2009 audit and included in the RCOphth proforma were evaluated. In addition, it was noted whether information had been recorded using the RCOphth 2013 proforma.

Results:

All 20 examinations were dated, and pupil dilation with dilating drops documented in the records. The name of the ophthalmologist was written in most of the cases (17/20), but the grade of ophthalmologist and patient identifier on all pages of all pages of the clinical record only in 8. The adequacy of the description of findings has improved since 2009, being present in 16 cases.
The documentation was complete when RCOphth proforma had been used, but in spite of the RCOphth recommendations only occurred in half of the records.

Discussions:

Clear documentation of ophthalmic findings is vital in the production of medicolegal reports which assist the Family Court in making very difficult decisions. RCOphth "Abusive head trauma and eye in infancy: 2013 guidelines" were produced to assist the Ophthalmologist to record findings in a standardised way. The document set what are seen by the Courts as minimum standards required for documentation. It is clear that these standards are much more likely to adhered to when the RCOphth proforma is used.

The most poorly reported standards in our audit (use of a speculum, indentation/rotation, the status of child and timings of dilating drops) are not included on RCOphth proforma, and the authors suggests to update and add these standards to improve the quality of recording of clinical findings.

Conclusions:

When required to produce a report for childcare proceedings, both the treating clinician and expert witness are reliant on the contemporaneous notes that may seem adequate at the time; however, many months later, they may appear less satisfactory in the legal settings.

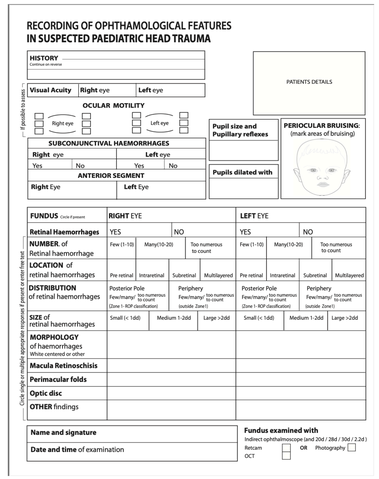
RCOphth standardised guidelines 2013 has improved the quality of recording clinical findings, but further education of ophthalmologists are required to assist child protection agencies and the courts adequately.

References:

1.Abusive head trauma and eye in infancy: RCOphth Guidelines, June 2013. (https://www.rcophth.ac.uk/wp-content/uploads/2014/12/2013-SCI-292-ABUSIVE-HEAD-TRAUMA-AND-THE-EYE-FINAL-at-June-2013.pdf)

Correspondance: rehana.sadia@mft.nhs.uk

ITEM OF INFORMATION	PRESENT	2009
1a.Was the RCOphth proforma used?	55%(11/20)	NA
1b. Was there a patient identifier present on each page written upon by ophthalmologist	40%(08/20)	70%
2.Was the name of ophthalmologist written and eligible	85%(17/20)	61.5%
3. Was grade of ophthalmologist indicated	50%(10/20)	54%
4. Date of examination	100%	100%
5.Time of examination	70%(14/20)	54%
6.Anterior segment examination	85%(17/20)	46%
7a. Was it indicated that pupil were dilated	100%	54%
7b. Was the drops used indicated	90%(18/20)	54%
7c.Was time of application indicated	30%(06/20)	54%
8. Was it indicated that infant was awake/ asleep/wrapped/unconscious	45%(09/20)	23%
9.Speculum used or not	20%(04/20)	15%
10.Indicated if rotation/indentation used	10%(02/20)	7%
11.Instruments used for fundal examination	85%(17/20)	7%
12a. Were retinal photographs taken	65%(13/20)	30%
12b.If photograph taken , was this indicated in clinical records	100%(13/13)	50%
13.Was there detailed description of findings with or without illustration	80%(16/20)	61%


RECORDING OF OPHTHAMOLOGICAL FEATURES IN SUSPECTED PAEDIATRIC HEAD TRAUMA

HISTORY (Continue on reverse)

PATIENTS DETAILS

Visual Acuity | Right eye | Left eye

OCULAR MOTILITY

Right eye | Left eye

Pupil size and Pupillary reflexes

PERIOCULAR BRUISING: (mark areas of bruising)

SUBCONJUNCTIVAL HAEMORRHAGES

Right eye: Yes / No — Left eye: Yes / No

ANTERIOR SEGMENT

Right Eye | Left Eye

Pupils dilated with

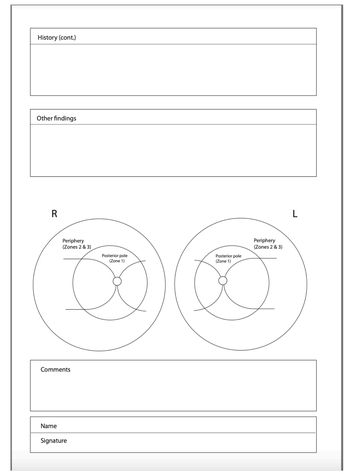
Circle single or multiple appropriate responses if present or omit/tick the text — If possible to assess

FUNDUS (Circle if present)	RIGHT EYE				LEFT EYE			
Retinal Haemorrhages	YES			NO	YES			NO
NUMBER of Retinal haemorrhage	Few (1-10)	Many(10-20)	Too numerous to count		Few (1-10)	Many(10-20)	Too numerous to count	
LOCATION of retinal haemorrhages	Pre retinal	Intraretinal	Subretinal	Multilayered	Pre retinal	Intraretinal	Subretinal	Multilayered
DISTRIBUTION of retinal haemorrhages	Posterior Pole (Zone 1- ROP classification) Few/many/ too numerous to count	Periphery Few/many/ too numerous to count (outside Zone1)			Posterior Pole (Zone 1- ROP classification) Few/many/ too numerous to count	Periphery Few/many/ too numerous to count (outside Zone1)		
SIZE of retinal haemorrhages	Small (< 1/dd)	Medium 1-2dd	Large >2dd		Small (< 1/dd)	Medium 1-2dd	Large >2dd	
MORPHOLOGY of haemorrhages White centered or other								
Macula Retinoschisis								
Perimacular folds								
Optic disc								
OTHER findings								

Name and signature

Date and time of examination

Fundus examined with
Indirect ophthalmoscope (and 20d / 28d / 30d / 2.2d) Retcam OR Photography OCT


History (cont.)

Other findings

R L

Periphery (Zones 2 & 3) Posterior pole (Zone 1)

Periphery (Zones 2 & 3) Posterior pole (Zone 1)

Comments

Name

Signature



Manchester Royal Eye Hospital

Inspected and rated Outstanding CareQuality Commission