

Injury: Accidental or Not

The consequences of over and
under diagnosis

Professor Marie Cassidy

Maltreatment

- Children and the elderly are vulnerable individuals at risk of abuse and neglect
- Maltreatment is an act or omission resulting in morbidity or mortality of the at risk group
- Subtle findings on physical examination maybe the only indication of abuse and neglect

Categories of maltreatment

Elderly

- Physical
- Sexual
- Psychological
- Neglect
- Financial exploitation of the elderly

Children

- Physical (0-2(4) yrs)
- Sexual (5-teens)
- Emotional (5-10 yrs)
- Neglect (0-5 yrs)

Recognition requires a multidisciplinary effort

PERPETRATOR

Children

- Physical/Sexual -
Father or father
substitute
- Emotional/Neglect -
Mother

Elderly

- >66% adult child or
spouse
- Nursing homes –
Leas Cross etc.

Maltreatment

Children

- Incidence unknown
- If NO intervention
60% recur
- 10% mortality rate

Elderly

- Incidence in Ireland
unknown
- In USA estimated
only 2% of cases
reported
- Possibly between 1
and 2 million per year

Signs of maltreatment

Children

- INJURIES - 'pattern' important
- Burns- cigarette
- Bites
- Incised wounds
- Fractures
- Dehydration and/or malnutrition
- Hygiene

Elderly

- INJURIES - 'pattern' important
- Burns
- Decubitus ulcers
- Dehydration and or malnutrition
- Restraints
- Improper medication use
- Hygiene

'Non - Accidental Injury'

Children

- 'BATTERED BABY' - Henry Kempe, 1962
- Recognised by Caffey (Radiologist), 1946
 - association of SDH with long bone fractures

Elderly

- “granny battering” – G.R.Burston, 1975. BMJ
- AMA – Elder abuse, 1987

Definitions of NAI and elder abuse

Child with a characteristic pattern of injuries
the explanation of which is NOT consistent with that pattern,
or where there is definite information, through acknowledgement or reasonable suspicion,
that the injury was inflicted
or knowingly not prevented
by any person having custody, charge or care of that child.

“Abuse” of elderly is defined as
“a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person”, WHO.

Includes the intentional infliction of physical or mental injury,

Sexual abuse,

Withholding food, clothing, medical care

Features of NAI and elder abuse

children

- Usually one child selected, others well cared for.
- Usually under 4 years
- 80% less than 2 years
- 50% less than 1 year
- male = female
- prematurity
- poor maternal response
- sickly child

Elderly

- Inability of person to perform ADLs and cognitive impairment
- Bowel or bladder incontinence
- Minimal social interaction
- Residence in close proximity to abuser or shared living
- Low level of education
- h/o prior domestic violence
- Limited access to local resources

Child abuse

Misdiagnosis may lead to miscarriage of justice or death of the victim of abuse

- Over-diagnosis
 - SDH
 - Retinal haemorrhages
- Interpretation of injuries v explanation given
- Ignorance or inability to provide care
 - SBS

Forensic controversies

- SIDS/Cot death
- 'Head injuries'
- Short fall head injuries
- Shaken baby syndrome
- Shaken impact syndrome
- Haemosiderin in the lung

Miscarriages of justice

Clarke, Canning and Patel

- 1999 Sally Clark convicted of murder of her first two children (2 life sentences)
 - shaking or smothering v. undetermined
 - Appeal successful 2nd time in 2003
 - Evidence withheld, statistics misleading (one in 73million)
 - **Consequence - Died 2007, AAI**

Miscarriages of justice

Clarke, Canning and Patel

- Angela Cannings convicted of smothering her two sons, 1991 and 1999
 - Charge of murder of her daughter in 1983 dropped
 - Smothering v. SIDS
 - 2003 Appeal upheld, statistics misleading

Miscarriages of justice

Clarke, Canning and Patel

- Trupti Patel acquitted of murder of her 3 children between 1997 and 2001
 - Meadows gave view “two cot deaths is suspicious, three is murder”
 - One had 4 fractured ribs – NAI v. resuscitation
 - Grandmother gave evidence that 5 of her 12 children died soon after birth
 - ?genetic heart disorder

S.I.D.S

(Cot Death)

The sudden unexpected death of an infant less than 1 year of age, with the onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history.
(Krous 2004)

It is a diagnosis of exclusion

S.I.D.S

Features (Ireland)

Age – 21 days to 9 months, few after 9 months

Male 1.2 : female 1

Time - during sleep

80% found dead by 6am (22.00-07.59)

weekends > weekdays (Sundays)

COLDER months, but little seasonal variation in Ireland

S.I.D.S

Features

- Prematurity
- Low birth weight
- Twins
- Minor illness in 48hours before death

S.I.D.S

Category 1A SIDS

Classic features of SIDS present and completely documented

Category 1B SIDS

Classic features of SIDS present but incompletely documented

Category 2 SIDS

As category 1 – except for 1 or more of the following

- **Age range 0-21 days or 9 months-1 year**
- **Similar deaths among siblings** or close relatives
- Neonatal or Perinatal conditions e.g. preterm, that have resolved by the time of death
- Mechanical asphyxia or suffocation caused by **overlying** not determined with certainty
- Abnormal growth and development not thought to have contributed to death
- **Marked inflammatory changes not sufficient to be unequivocal causes of death**

Elder abuse

Nursing home scandals

- Physical and verbal abuse of residents
- Errors in medication
- Pressure sores
- Weight loss
- Unsupervised
- Restrained

Elder Neglect

Intentional or unintentional

- Intentional
 - Withholding food, medicine etc.
- Unintentional
 - Physical or psychological impairment of the caregiver
 - Caregiver incapable of providing proper care
 - Passive neglect due to ignorance or lack of skills of caregiver

Elder neglect

D.D.

- Self neglect
- Chronic disease
 - Diabetes Mellitis,
 - Alzheimer's/dementia
 - Malignancy