



Welcome to the eighth issue, a Christmas themed edition of 'The PEN' – the Paediatric Education Newsletter. This is a monthly educational bulletin of cases, clinical questions and learning points from recent teaching.

 **A Very Macleod's Clinical to you** 

A fit and well 14 year old girl presents to A&E with a 3-day history of coryzal symptoms, rash, dizziness and fever. On assessment she is tachypnoeic, tachycardic, and mildly hypotensive with a temperature of 37.8°C. Auscultation reveals clear lung fields but midsystolic and diastolic murmurs are heard. After two fluid boluses, BP is unchanged but heart rate increases. ECG shows widespread ST-elevation and sinus tachycardia. You identify your earlier findings as a pericardial friction rub.

Which of the following is TRUE about this sign and potential pericarditis?

- A. The rub is often described as 'walking on fresh snow' or 'leather-on-leather'.
- B. Pericardial and pleural rubs cannot be differentiated through auscultation.
- C. The rub is caused by friction between the pericardium and the sternum and rules out tamponade.
- D. Convex ST segment elevation and T wave inversion occur simultaneously, with reciprocal ST depression.
- E. Echocardiogram is only needed after the acute phase, to reduce artefactual findings.

Elf and Safety

Which of the following holds the highest risk of injury?

- A. Santa Claus and Santa Claus impersonators.
- B. Opening and using presents.
- C. The Christmas meal.
- D. Putting up Christmas Decorations.
- E. Interrupting the Royal Christmas Message

Twelve Additional Random Fact(oid)s Of Christmas

Which of the following are true?

- A. 2% of people have fallen out of lofts while getting decorations down.
- B. 20,000 people attend A&E due to Christmas injuries every year.
- C. About 50% of people have suffered an injury while preparing food.
- D. Button batteries are safer as they will pass though the gut if swallowed.
- E. The main cause of paediatric burns is hot food/drink.
- F. 50% of burns admissions involve children aged 0-2 years old.
- G. Cooling a burn under 15°C water for 20 min can reduce a burn by up to 25%.
- H. Lund-Browder diagrams account for age in estimating %TBSA in burns.
- I. An estimated 40,000 Christmas Turkey dinners are burnt each year.
- J. England's only Polar Bears live near Doncaster.
- K. Boxing Day became a holiday in the mid-1700s.
- L. The bell of Dewsbury Minster (West Yorkshire) will ring 2,020 times this Christmas Eve.

Answers

https://docs.google.com/document/d/17phHjX_IDDO2gzR52Oy4j6DjcWql8jIPc1hE80fweFg/edit?usp=shari

9 y/o presents with multiple bruises and spreading petechiae, they were noticed by her Mum after she had been trampolining. She was systemically well with a history of asthma. On examination there were multiple petechiae and purpura all over her body, bleeding from her gums and a large purpuric lesion on her tongue.

What is the most likely differential at this stage?

- A. Haemophilia B (Christmas disease)
- B. Non-accidental injury
- C. Immune thrombocytopenic purpura (ITP)
- D. Henoch-Schonlein Purpura (HSP)



Blood tests showed – Hb 134, WBC 10.8 (Neuts 1.6), **Platelets 0**, blood film & clotting normal
She was diagnosed with ITP and discussed with haematology at Sheffield Children's Hospital. Following advice she was started on IV Tranexamic acid and IV Immunoglobulin (IVIG).

ITP is an autoimmune disorder causing destruction of platelets.

Indications for treatment (steroids or IVIG):

- Platelet count does not guide treatment unless associated with bleeding
- Moderate severity (with additional risk factors) – 3+ bleeding sites, numerous petechiae & bruises >5cm, epistaxis >20min, marked social concerns
- Severe – epistaxis requiring packing, suspected internal haemorrhage
- Give IVIG if moderate/severe plus – Hx active GI bleeding, active chicken pox, other significant active infection, previous failed response to steroids
- If no additional risk factors commence prednisolone 4mg/kg/d
- Platelet transfusions do not work unless given with IVIG – reserve for severe bleeding

IVIG:

- Causes more rapid platelet recovery but associated with more side effects during infusion
- Pooled from human plasma (treat as a blood product)

Resources:

- www.sheffieldchildrens.nhs.uk/download/628/medicine/9919/336_management_of_suspected_immune_thrombocytopenic_purpura.pdf
- https://www.ukitp.org/docs/ITP/suspected_or_known_immune_thrombocytopenia_management_plan_children.pdf
- **BMJ Best Practice** [Immune thrombocytopenia](#)
- **DynaMed** [Immune Thrombocytopenia \(ITP\) in Children](#)
- <https://drive.google.com/file/d/1BkMOhfhAq8IGL9NCblQktQkD4gjZV10e/view?usp=sharing>

Learning Points from PIMS-TS Teaching

1. PIMS-TS can mimic a surgical abdomen. 74% of patients with PIMS-TS present with abdominal pain.
2. Save serum in patients with intended use of IVIG both for research and further testing.

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