

FOR SHORT ANSWERS

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FOR LONG ANSWERS

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ENDGAMES

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STATISTICAL QUESTION

Matching the test to the problem

Which of the following statistical tests would be your first choice in each of the studies below?

Test:

- 1 χ^2 for contingency tables
- 2 Two sample *t* test
- 3 Log rank test
- 4 Poisson test
- 5 Pearson's correlation coefficient
- 6 Paired *t* test

Study:

- a) The difference in the occurrence of heart attacks on duty in the staff of two airlines
- b) Change in uric acid concentrations in people with gout before and after starting a new diet
- c) Cholesterol concentrations in people from high and low income households in a health survey
- d) The association of car colour with owner's personality type

Submitted by John Fletcher

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ON EXAMINATION QUIZ

Paediatric nephrology

The answer to this question, and more questions on this topic, are available from www.onexamination.com/endgames until midnight on Wednesday.

This week's quiz is on paediatric nephrology and is taken from the MRCPCH examination.

Select the diagnosis from the list that would best explain the three cases that follow.

- | | |
|-------------------------------|--------------------------------|
| A Haemolytic uraemic syndrome | F Renal calculi |
| B Henoch-Schönlein purpura | G Renal tubular acidosis |
| C Nephrotic syndrome | H Renal vein thrombosis |
| D Polycystic kidneys | I Systemic lupus erythematosus |
| E Pyelonephritis | J Wilms's tumour |

An 11 year old girl with a previous history of chronic glomerulonephritis presents with bruising and epistaxis. A full blood count confirms a pancytopenia.

A 14 year old boy with a history of recurrent urinary tract infections presents with severe abdominal pain radiating to his back, dysuria, and haematuria.

A 1 year old girl with a three month history of vomiting is investigated for failure to thrive. She is found to be mildly acidotic.



Multiple petechial papules, macules, and purpuric plaques on the thigh

PICTURE QUIZ

Petechial rash on the extremities

A 53 year old, afebrile woman presented to the dermatology clinic with a two week history of petechial rash on her lower extremities that had progressed up to her arms.

In addition, she also had pain in the wrists, knees, and elbows.

About five months earlier, she had been diagnosed with group A streptococcal pharyngeal infection but had not been treated with antibiotics.

She was currently taking salbutamol, famciclovir, levothyroxine, lovastatin, and varenicline.

A systems review was unremarkable and she reported no haematuria, abdominal pain, or bloody stools.

A physical examination found multiple petechial macules, papules, and purpuric plaques, which were more numerous on her legs than her arms (figure).

A complete blood count and coagulation studies were normal. Urinalysis showed haematuria and proteinuria.

A skin biopsy of a petechial papule revealed leucocytoclastic vasculitis, with a granular IgA reactivity around the blood vessels in the papillary dermis.

- 1 What additional studies could be useful in a patient with palpable purpura?
- 2 What is the most likely diagnosis?
- 3 What are the adverse sequelae of this disease?

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