# ENDGAMES

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## STATISTICAL QUESTION

#### The purpose of control groups

Researchers investigated the effectiveness of a monovalent rotavirus vaccine against severe rotavirus diarrhoea in children under 2 years. A matched case-control study design was used. Cases were 323 children under 2 years admitted to hospitals in El Salvador with laboratory confirmed rotavirus diarrhoea. Controls were 969 children matched to cases for age and neighbourhood in a ratio of 3:1.

Details of vaccination with the monovalent rotavirus vaccine were confirmed retrospectively by inspection of vaccination cards held by parents. Details about further risk factors were collected from hospital records or in interviews with parents. The researchers concluded that monovalent rotavirus vaccine was highly effective against acquiring rotavirus diarrhoea severe enough to lead to hospital admission in children under 2 years.

Which of the following statements, if any, are true for the above case-control study?

a) When recruited all participants had severe rotavirus diarrhoea

b) The control group allowed the natural epidemiology of severe rotavirus diarrhoea to be studied

c) The control group comprised active controls

Submitted by Philip Sedgwick Cite this as: *BMJ* 2013;346:f658

### ANATOMY QUIZ

## Ossification centres in a radiograph of a child's elbow

Identify the ossification centres labelled A-E on this anteroposterior radiograph of the right elbow of a 10 year old child.

Submitted by Ying Chen and Henry H Tam Cite this as: BMJ 2012;345:e6965



## PICTURE QUIZ

## A man with a blocked nose

A 40 year old man presented with an 11 year history of nasal blockage and anosmia. He reported that he often had "something" prolapsing from his nose. His medical history included hay fever. He took no regular drugs and had aspirin intolerance. On examination there was a glistening fleshy structure within his left nostril (figure).



He had similar masses of the same appearance, consistency, and structure in his right nostril, although they were much smaller.

- 1 What is the differential diagnosis of a blocked nose?
- 2 What does the photograph show?
- 3 How would you investigate further?
- 4 What treatment would you recommend?
- 5 When should patients be referred to specialist care?

Submitted by O Mulla, N Charaklias, and P A Nix Cite this as: *BMJ* 2012;345:e7567

## CASE REPORT

## A patient with longstanding type 1 diabetes and a swollen, warm, and red foot

A 54 year old man with type 1 diabetes since the age of 13 years was referred to the diabetic foot clinic with a warm swollen right foot of seven days' duration. Over the past four years he had had acceptable diabetes control and an average glycated haemoglobin of 57 mmol/mol (7.4%). He had a history of hypertension, microalbuminuria, and background diabetic retinopathy. He did not remember any trauma to his foot, had only mild pain in the affected area, and had no signs or symptoms of systemic infection.

On examination, his right foot was swollen and erythematous over the dorsal aspect. No active foot ulceration or cracked skin was present. He had symmetrical peripheral sensorimotor neuropathy, with loss of protective sensation (inability to feel the 10 g Semmes-Weinstein monofilament, also known as 5.07 gauge monofilament nylon fibre) and intact circulation in both feet.

- 1 What is the diagnosis?
- 2 How would you confirm the diagnosis?
- 3 How would you manage this patient?

Submitted by Nicholas Tentolouris, Frank L Bowling, and Edward B Jude Cite this as: *BMJ* 2012;345:e7760

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