

ENDGAMES

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STATISTICAL QUESTION

Odds and odds ratios

Researchers evaluated the efficacy of intravitreal injections of bevacizumab for the treatment of neovascular age related macular degeneration. A prospective, double blind, multicentre, randomised controlled trial study design was used. The intervention was intravitreal bevacizumab 1.25 mg, given as three loading injections at six week intervals and followed by further treatment if needed (again at six week intervals). The control was standard treatment—photodynamic therapy, intravitreal injections of pegaptanib, or intravitreal injections of placebo. Study participants were 131 patients (mean age 81 years) with wet age related macular degeneration.

The primary outcome measure was a gain of 15 letters or more of visual acuity at one year from baseline assessed with an ETDRS (Early Treatment Diabetic Retinopathy Study) visual acuity chart. Of 65 participants allocated to the intervention, 21 (32%) gained 15 letters or more of visual acuity from baseline compared with two (3%) of the control group ($n=66$). The odds of a gain of 15 letters or more of visual acuity at one year were 21/44 for the intervention group and 2/64 for the control group. The unadjusted odds ratio for the primary outcome when comparing the intervention with the control was 15.3 (95% confidence interval 3.4 to 68.5). When adjusted for age, sex, and baseline visual acuity, the odds ratio for the primary outcome when comparing the treatments remained significant (adjusted odds ratio 18.1, 95% confidence interval 3.6 to 91.2). The authors concluded that the intervention (bevacizumab 1.25 mg intravitreal injections given as part of a six weekly variable retreatment regimen) was superior to standard care.

Which of the following statements, if any, are true?

- It was possible to estimate the population at risk
- The odds ratio of gaining 15 letters or more of visual acuity at one year estimates the population relative risk of the primary outcome when comparing the intervention with the control
- The odds of gaining 15 letters or more of visual acuity at one year is the absolute probability of the primary outcome occurring
- When compared with the control, the intervention was independently associated with the primary outcome

Submitted by Philip Sedgwick

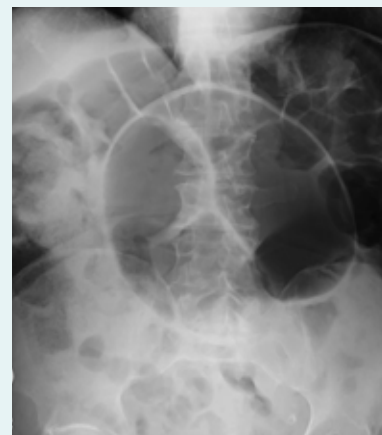
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PICTURE QUIZ

A growing abdominal problem

A 58 year old man with learning difficulties was referred to the on-call general surgical team with a four day history of progressive abdominal distension and constipation. He was a resident at a care home, and his carer reported that apart from “a bit of diarrhoea” he had not opened his bowels for the past few days. The patient himself reported progressive, colicky abdominal discomfort. There had been no nausea or vomiting, and he appeared otherwise systemically well. He had originally been eating small amounts but stated that “he wasn’t hungry anymore” so had not eaten for the past 24 hours. He was taking no prescribed drugs, had no other medical problems, and had normal mobility. This was the third time that he had presented with similar symptoms.

On examination, he had a markedly distended abdomen that was diffusely tender, but without guarding, and resonant to percussion. Bowel sounds were hyperactive. He did not have a fever and other observations were within normal ranges. Given his presentation, a plain abdominal radiograph was obtained (figure).



- 1 What is the diagnosis?
- 2 How should this condition be investigated and initially managed in a stable patient?
- 3 If non-operative management fails, or there are signs of ischaemia or perforation, what are the next options?
- 4 What are the diagnostic and management challenges in patients with learning disability?

Submitted by Kunal Kulkarni, Neeta Lakhani, Alexandra Cope, and Daniel McGrath

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ANATOMY QUIZ

Digital subtraction angiography of the right lower leg

Name the anatomical structures labelled A-E in this digital subtraction angiographic image of the right lower leg.

Submitted by Nikolaos Papadakos

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