

ENDGAMES

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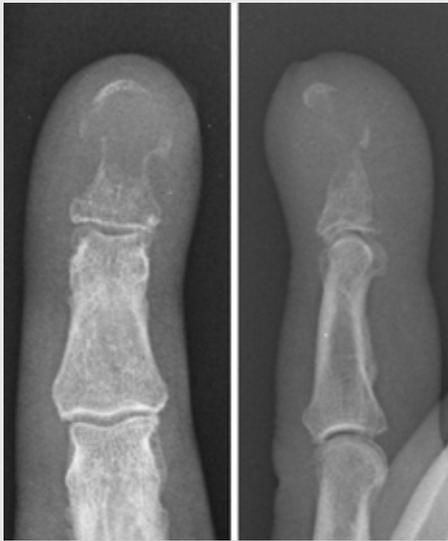
FOR LONG ANSWERS

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CASE SCENARIO

Squamous cell carcinoma of the nail bed



A 75 year old man presented with a four month history of presumed paronychia of his right index finger. Antibiotic and antifungal treatment had not been effective. Destruction of the distal phalanx on plain radiographs was thought to be caused by osteomyelitis.

Surgical debridement showed a well defined subungual mass. Histological examination confirmed invasive, moderately differentiated squamous cell carcinoma of the nail bed with no infection.

Although the causes of squamous cell carcinoma are uncertain, it is the most common primary nail bed malignancy. Metastasis is rare and no regional lymphadenopathy was found. Amputation through the middle phalanx resulted in clear tumour margins.

Learning points:

- Subungual squamous cell carcinoma can mimic benign conditions and should be suspected in atypical presentations
- A multidisciplinary approach to the assessment, management, and follow-up of these lesions is advised
- If in doubt, any bone or soft tissue tumour should be discussed with the appropriate tertiary referral service

Submitted by A Nicholls, J Jacoby, R Hartley, and D O'Connor

Patient consent obtained.

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STATISTICAL QUESTION

Understanding the Hawthorne effect

Researchers investigated the effectiveness of patient controlled analgesia for patients presenting to emergency departments with pain from traumatic injuries. A randomised controlled trial with a parallel groups study design was used. The control treatment was usual care, with analgesia titrated by nurses according to hospital guidelines. The participants were patients aged 18-75 years presenting to the emergency department who required intravenous opioid analgesia for the treatment of moderate to severe pain resulting from traumatic injuries, and who were expected to be admitted to hospital for at least 12 hours. In total, 200 adults were recruited and randomised to the intervention (patient controlled analgesia; n=99) and control (routine care; n=101) treatment groups.

The primary outcome was total pain experienced over the 12 hour study period, recorded using a visual analogue scale. Secondary outcomes included total amount of morphine used. The mean total pain experienced by the intervention group was lower than that experienced by the control

group, although the difference was not significant. Participants in the intervention group used significantly more morphine than was administered in the usual care group. It was concluded that patient controlled analgesia provided a reduction in pain, albeit not significant, compared with routine care for emergency department patients with traumatic injuries. The researchers commented that the results of the trial may have been influenced by the Hawthorne effect.

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

- The Hawthorne effect is a change in behaviour as a response to observation and assessment
- The nurses administering routine care for the control group were prone to the Hawthorne effect
- Participants in the intervention group were prone to the Hawthorne effect
- Participants in the control group were prone to the Hawthorne effect

Submitted by Philip Sedgwick and Nan Greenwood

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CASE REVIEW

Sudden onset diffuse erythema and oedema of the breast

A 40 year old premenopausal white woman presented to a general gynaecologist with diffuse redness, swelling, and rapidly progressive pain in her left breast. She did not have a fever. Her medical history included one full term pregnancy with spontaneous delivery 19 years earlier. Her maternal grandmother had died of breast cancer at age 65 years. On physical examination, a warm and painful diffuse oedematous erythema was found in the inner quadrants of the breast (fig 1), but she was otherwise in good general health.

- 1 On the basis of the history and examination findings, what are the differential diagnoses and the probable diagnosis?
- 2 What investigation(s) would you undertake to confirm your diagnosis?
- 3 What is the optimal treatment for this condition?



Fig 1

Submitted by Inês Vasconcelos, Miguel de Sousa Mendes, Jörg Linke, and Winfried Schoenegg

Patient consent obtained.

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ANSWERS TO ENDGAMES, p XX For long answers go to the Education channel on thebmj.com

CASE REVIEW

Sudden onset diffuse erythema and oedema of the breast

- 1 Non-lactational mastitis, cellulitis, abscess, and inflammatory breast cancer (IBC). Fig 2 shows a classic presentation of IBC.
- 2 Radiological imaging and core biopsy of the lesion.
- 3 In contrast to conventional invasive breast cancer, patients with IBC should be referred for neoadjuvant therapy, then offered a modified radical mastectomy with axillary dissection, post-mastectomy radiotherapy, and delayed breast reconstruction.



Fig 2

STATISTICAL QUESTION

Understanding the Hawthorne effect

Statements *a*, *b*, *c*, and *d* are all true.