Department of Scientific Publications

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®

Writing Clinical Case Reports

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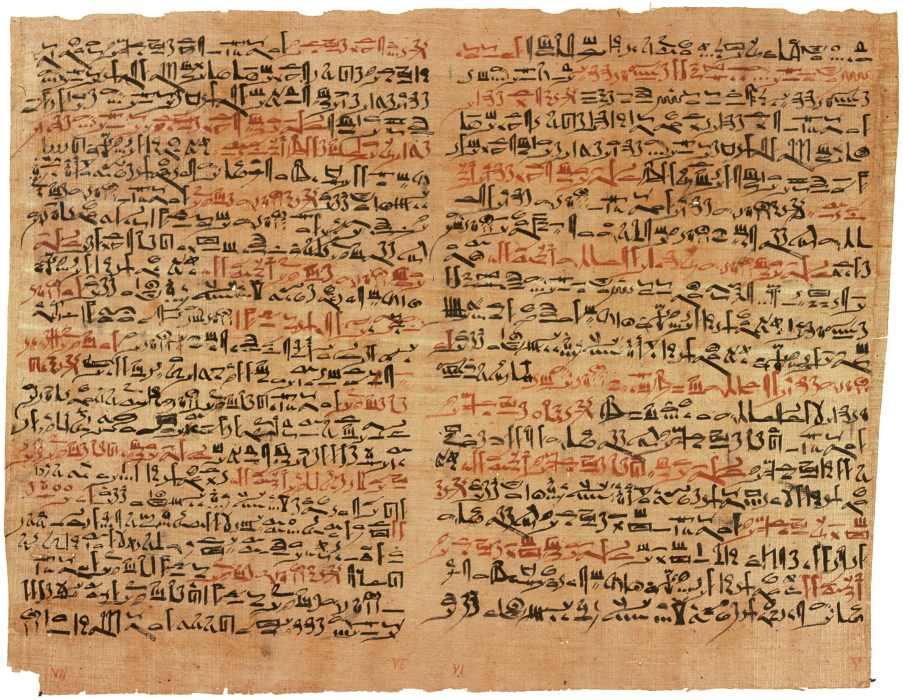
What is a case report?

A case report is a story with educational value to other clinicians.



Papyrus describing breast tumors, possibly by Imhotep, Egypt, ca. 3000-2500 BCE. New York Academy of Medicine.

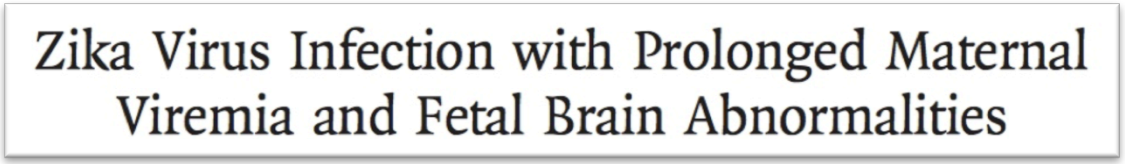
Planning to write a case report

1. Identify an appropriate case.
2. Conduct a literature search.
3. Identify a target journal.
4. Get permission from the patient.

Choosing an appropriate case

Appropriate topics for a case report

Uncommon or new presentations of a disease


Zika Virus Infection with Prolonged Maternal Viremia and Fetal Brain Abnormalities

Beneficial, adverse, or unexpected responses to treatment

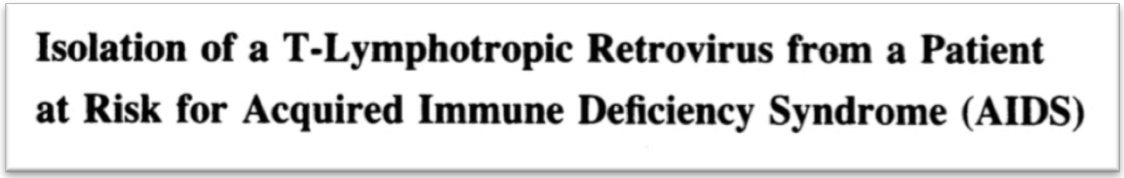

THALIDOMIDE AND CONGENITAL ABNORMALITIES

Unusual combinations of symptoms, test results, or events that make differential diagnosis challenging


Case report

Difficult diagnosis of brainstem glioblastoma multiforme in a woman: a case report and review of the literature

Findings that shed new light on the possible pathogenesis of a disease


Isolation of a T-Lymphotropic Retrovirus from a Patient at Risk for Acquired Immune Deficiency Syndrome (AIDS)

Where to publish a case report

- Many journals do not publish case reports.
- Some newer journals focus solely on case reports.
- Check author instructions or recent issues.
- Don’t be taken in by disreputable publishers! thinkchecksubmit.org

CARE guidelines

care-statement.org

"Without the benefit of reporting guidelines, case reports often are insufficiently rigorous to be aggregated for data analysis, inform research design, or guide clinical practice."

Gagnier JJ, Kienle G, Altman DG, Moher D, Sox H, Riley D, the CARE Group. The CARE guidelines: consensus-based clinical case reporting guideline development. BMJ Case Rep 2013.

Structure of a case report

- Title
- Abstract
- Introduction
- Case Description
- Discussion

Introduction

A tumor of the parotid gland would usually be expected to be a primary tumor. Metastases to the parotid gland are extremely rare and present a diagnostic challenge. According to one report, only 14 cases of parotid gland metastases were reported in the period from 1982 to 2010.[1] The kidney, lung, and breast are the most commonly reported primary tumor sites leading to metastases in the head and neck region.[2] Immunohistochemistry is an invaluable diagnostic tool in differentiating primary salivary gland tumors from secondary ones.[3] We report a case of parotid gland metastases in a patient who had been treated for breast cancer 26 years earlier.

Typical characteristics

References to literature

"We report a case…"

Adapted from: Rawet T, Jegannathen A, Soumian S. Parotid gland: an unusual site of breast cancer metastasis. BMJ Case Rep 2017. doi:10.1136/bcr-2017-221842

Case description

- Patient information
- Clinical findings
- Diagnostic assessment
- Therapeutic intervention
- Follow-up and outcomes

Case description

Patient information

Previous relevant diagnoses and comorbidities

Demographic information

Presenting symptoms

Relevant psychosocial and behavioral history

A 36-year-old Caucasian man with a past history of intellectual impairment and epilepsy diagnosed in childhood presented to our hospital. He had high-grade fever and abdominal pain and had been vomiting for a week. His mother reported that he had had childhood behavioral difficulties that included a propensity to swallow coins. Despite her assurance that he had not swallowed any coins since the age of 12, we performed an abdominal radiograph.

Adapted from: Ismail I, Mudge DW. Pancreatic and biliary obstruction years after retention of a swallowed coin in a duodenal diverticulum: a case report. J Med Case Rep 2015;9:144.

Case description

Clinical findings

On admission, she received a chest x-ray that showed a large lung mass. Follow up chest computed tomography and magnetic resonance imaging (MRI) studies showed a 7.7 × 8.5 × 7.4-cm necrotic mass arising from the right lower lobe, invading the left atrium via the inferior left pulmonary vein, and extending into the left ventricle (Figure 1). Electrocardiography (ECG) showed normal sinus rhythm but also showed evidence that the left atrial mass was prolapsing through the mitral annulus, partially obstructing the mitral valve. Routine laboratory tests, including a metabolic panel and complete blood count, were normal, with the exception of a low platelet count (120 000 per microliter).

Imaging

Electrocardiography

Laboratory tests

Adapted from: Pham N, Bonnen MD, Ghebre YT. Silent neoplastic cardiac invasion in small cell lung cancer: a case report and review of the literature. Am J Case Rep 2018;19:619-622.

Case description

Diagnostic assessment

Alternatives considered

Diagnostic reasoning

Although our patient had ankle pain, she did not have the morning stiffness or joint pain characteristic of rheumatoid arthritis. She also did not have the keratoconjunctivitis sicca and xerostomia characteristic of the Sjögren syndrome. An inguinal lymph node biopsy with flow cytometry ruled out lymphoproliferative disorders.

She had positive test results for antinuclear antibodies (ANA) (titer, 640), rheumatoid factor, anti–double-stranded DNA (anti-dsDNA), antiribonucleoprotein antibodies, and anti–68-kD antibodies. Her C3 and C4 levels were within normal limits. We diagnosed SLE on the basis of her alopecia, anemia, positive ANA results, and positive anti-dsDNA results.

Corrigan FE, Leventhal AR, Khan S, Rao S, Christopher-Stine L, Schulman SP. A rare cause of cardiac ischemia: systemic lupus erythematosus presenting as the hyperviscosity syndrome. Ann Intern Med 2010;153:422-424.

Case description

Therapeutic interventions

Timing of treatment

Six months after surgery, the immunosuppressive therapy had been reduced and consisted of tacrolimus (target 3 to 6 µg/L), everolimus (target 3 to 6 µg/L), mycophenolate mofetil 0.5 g twice a day, and prednisolone 7.5 mg daily. After the diagnosis of HEV infection, the dose of mycophenolate mofetil was reduced to 0.25 g twice a day, and treatment with ribavirin was initiated at a dose of 800 mg daily. Ribavirin therapy resulted in a rapid decline of liver enzyme levels, and after 2 months of treatment, the level of HEV RNA in the patient's serum dropped from 1.6×10^7 to 63 copies per milliliter (Fig. 1).

Drugs, dosages, and schedules

Adjustment of treatment

The patient then experienced an exacerbation of gout, which was treated by increasing the dose of prednisolone to 20 mg daily for 3 days, then 10 mg daily for another 3 days. During this period and for up to 9 weeks afterward, HEV replication reactivated, and the serum viral load increased to 2.3×10^4 copies per milliliter.

Adapted from: Waldenström J, Castedal M, Konar J, Karason K, Lagging M, Norder H. Chronic hepatitis E infection with an emerging virus strain in a heart transplant recipient successfully treated with ribavirin: a case report. J Med Case Rep 2015;9:180. doi: 10.1186/s13256-015-0655-z

Case description

Follow-up and outcomes

Histology of the resected tumor showed moderately differentiated invasive squamous cell carcinoma, and margins were negative for malignancy.

Post-operatively, the patient wore compression stockings and was given subcutaneous clexane. No lower limb swelling was noted. His recovery was uneventful and he returned home on the 5th day.

Post-operative follow up at the 6th month with a positron emission tomography–computed tomography (PET–CT) scan showed no recurrence of the tumor.

Outcome of surgery

Post-surgical treatments

Post-treatment events

Follow-up

Lin Z, Chng JK, Chong TT, Soo KC. Renal pelvis squamous cell carcinoma with inferior vena cava infiltration: case report and review of the literature. Int J Surg Case Rep 2015;5:444-447. doi: 10.1016/j.ijscr.2014.05.001

Using images

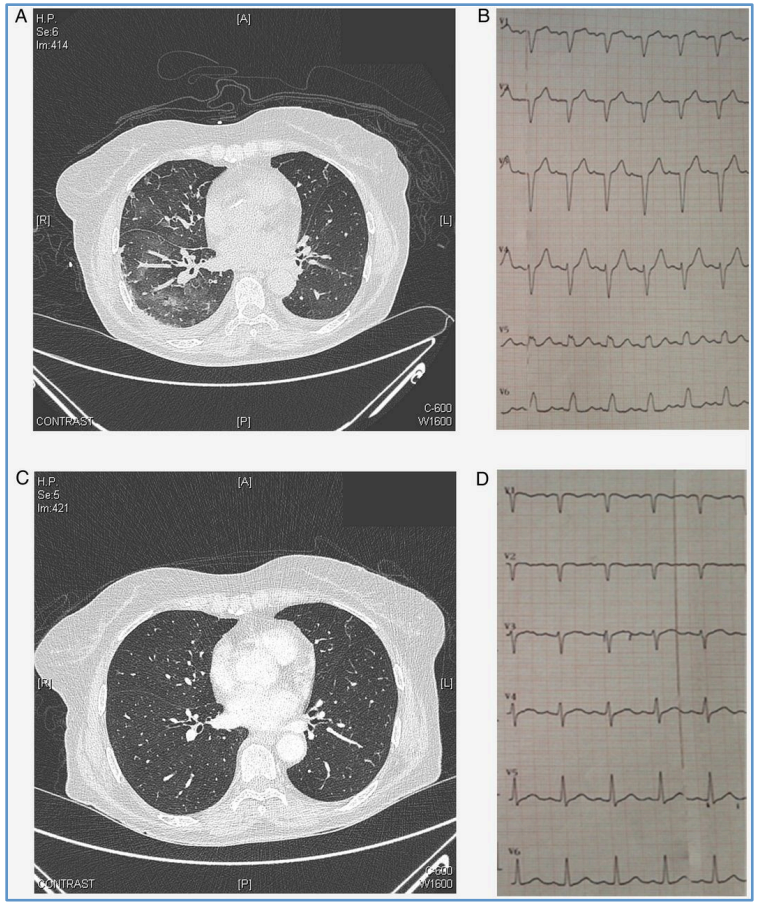


Figure 1
CT scan showing bilateral interstitial pulmonary infiltrates at admission (A), ECG revealing acute left bundle branch block (B), treatment allowed vanishing of the pulmonary infiltrates (C) and of the left bundle branch block (D).

- Clear
- Easy to understand
- Logical
- Anonymous
- Brief but descriptive legend

Durel CA, Saison J, Chidiac C, Ferry T. A case of interstitial pneumonia, myocarditis and severe sepsis caused by *Chlamydia pneumoniae*. BMJ Case Rep 2015. doi:10.1136/bcr-2015-211788

Discussion

Literature review and case comparison

Overview of relevant medical literature

Comparison and contrast with previous reports

Patients who might be diagnosed with PKU in adulthood could present with common neurological abnormalities, including dementia, Parkinsonism, spastic paraparesis, behavioural problems, epilepsy, and movement disorders, which increases the difficulty of diagnosis or the likelihood of late diagnosis [7-13]. Every patient identified in the literature review had some degree of dementia, such as low intelligence quotient or poor performance on the MMSE and MoCA tests. The detection of PHE in the blood is crucial since high concentrations of PHE exert a direct toxic effect on the brain. In theory, patients with moderate hyperphenylalaninemia (180-600 μmol/L) can remain asymptomatic [6]; however, the concentration of PHE was over 800 μmol/L in all of the patients in our literature review, and most cases were classified as classical hyperphenylalaninemia. Our patient's concentration of PHE was 966.67 μmol/L when diagnosed, which may be slightly lower than other reported cases'. This may explain why his symptoms were less severe than those of others.

Adapted from: Liu Y, Dong Z, Yu S. Late-diagnosed phenylketonuria mimicking x-linked adrenoleukodystrophy with heterozygous mutations of the PAH gene: a case report and literature review. Clin Neurol Neurosurg 2018;171:151-155.

Discussion

Conclusions and take-home message

What was new

What you learned

Take-home message

To the best of our knowledge, this is the first case demonstrating FDEIA to chickpea in an adolescent patient. This case demonstrates the challenge in identifying specific causative food allergens when foods are eaten in combination, when the food is processed, and when cross-reactivity is possible. These challenges add complexity to a condition, FDEIA, which is already rare and unfamiliar to some health care providers. We hope that this case will serve as an important reminder that, although rare, FDEIA exists and making a diagnosis can lead to life-saving preventative strategies. As legumes are not a common food associated with FDEIA, this will add to our current knowledge base in the field of allergy.

Roberts H, Ben-Shoshan M. Food-dependent exercise-induced anaphylaxis to chickpea in a 17-year-old female: a case report. J Med Case Rep 2015;9:186.

Abstract

Most patients with non-small cell lung cancer with common epidermal growth factor receptor (EGFR) mutations respond dramatically to EGFR tyrosine kinase inhibitors (TKIs), but data are limited on the response of tumours with uncommon mutations. We present the case of a 68-year-old man with stage IV lung adenocarcinoma with an uncommon EGFR mutation in exon 21 (L861Q). The disease progressed 2 years after he started erlotinib (150 mg daily). Using a transbronchial lung biopsy, we detected additional mutations in exon 20 (T790M) and exon 21 (L858R). He was treated with osimertinib (80 mg daily) and achieved a partial remission. This case demonstrates the value of repeating a biopsy after EGFR-TKI therapy in patients with uncommon EGFR mutations.

Background

Description

Take-home message

Niwa H, Nakahara Y, Sasaki J, Masuda N. A promising response to osimertinib in a patient with erlotinib-resistant lung adenocarcinoma with an uncommon EGFR mutation. BMJ Case Rep 2018. doi: 10.1136/bcr-2017-219770

Title

Should be brief, focused, and include the words "case report."

Case report

Polymorphous low-grade adenocarcinoma of the tongue: a case report

Successful surgical treatment of advanced follicular thyroid carcinoma with tumor thrombus infiltrating the superior vena cava: report of a case

First case report of bloodstream infection by *Rhizomucor pusillus* in a child with hemophagocytic lymphohistiocytosis

Case Report

T-cell Lymphoblastic Lymphoma in the Maxilla and Mandible of a Child: A Rare Case Report

Protecting patient privacy

CASE BASED D

Bagpipe
lung dis

Jenny King, M

a Chaudhuri

News

Hospital apologises after musician's family find out in journal his death was linked to mouldy bagpipes

share

Protecting patient privacy

Do

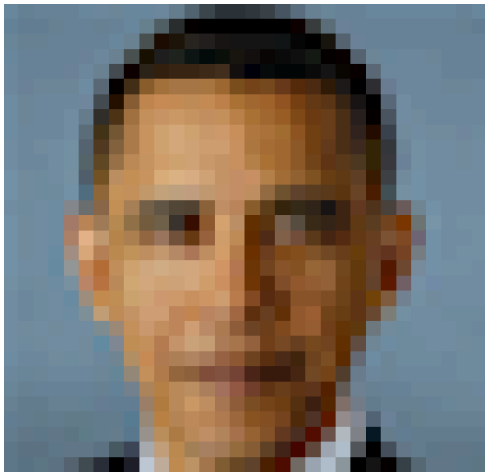
- Remove all identifying information
- Avoid full-face photographs if possible
- Get patient consent to publish the case and HIPAA Authorization form
- Obtain signed Media Authorization and Release form for permission to publish photos or images that are not de-identified

Protecting patient privacy

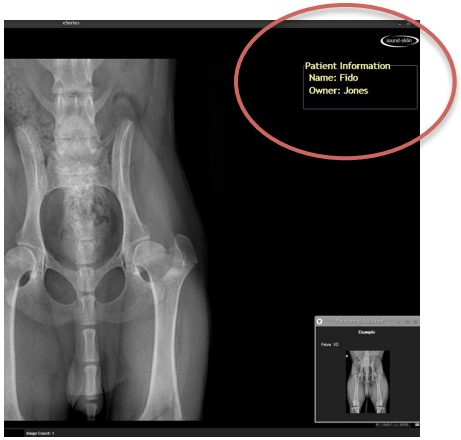
Don’t

Use bars over the patient’s eyes

Pixelate the patient’s face



Show the patient’s PHI on images



Key points to remember

- The purpose of a case report is always educational.
- Case reports tell a story in chronological order.
- Case reports should be written in a simple, clear style.
- Patient privacy must be protected.

For help

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Institutional Compliance
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For more information

CARE Statement

www.care-statement.org

Scientific Publications: Writing Case Reports

http://inside.mdanderson.org/departments/scipub/writing-case-reports.html

The Write Stuff: Publishing Patient Information in Case Reports

http://inside.mdanderson.org/departments/scipub/2016---winter-issue-vol-13-no-1-.pdf

The Write Stuff: Using Calendar Dates in Case Reports

http://inside.mdanderson.org/departments/scipub/2016---autumn-issue-vol-13-no-4-.pdf