

CASE REPORT

Case report: A case of pericardial effusion presenting to primary care

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SUMMARY

This is a rare but interesting case of Mr. MZ who had a life-threatening pericardial effusion presenting to the primary care clinic. Through great clinical acumen and prudent targeted investigations, diagnosis of this rare condition was reached and urgent referral made to the cardiology team which performed an emergency pericardiocentesis which proved to be life -saving. However, the hovering poor prognosis of Mr. MZ may prompt for a referral to the palliative care team to provide quality end of life care for this unfortunate patient.

KEY WORDS:

Pericardial effusion, malignancy-related, poor prognosis, emergency pericardiocentesis, palliative care

CASE REPORT

Mr MZ, a 48 years old Malay man presented to a primary care clinic in 2016 complaining of upper abdominal pain for the past two days. It was associated with low grade fever with the absence of vomiting, diarrhoea or urinary symptoms. He had on and off mild shortness of breath on and off for the past two weeks with no chest pain. He had no underlying cardiovascular or respiratory problem.

He had a history of left low grade mucoepidermoid parotid carcinoma which was diagnosed 2 years ago. He underwent surgery (left total parotidectomy and left supraomohyoid neck dissection) in February 2015 and adjuvant radiotherapy till May 2015 which left him with residual left 7th cranial nerve upper motor neurone (grade 4-5 lesion). However, he had defaulted his oncology and ear,nose and throat (ENT) follow-up since then. Other than this malignancy, he had no other chronic illnesses at this stage.

Contributing to his non-adherence is his dire financial status. He works as a lorry driver with long working hours. Defaulting one appointment after another led to defaulting all appointments altogether.

For his present complaint, physical examination revealed mild tenderness over right hypochondrium with no guarding or rebound tenderness. His vital signs were stable. Provisional diagnosis was hepatitis to rule out gallstones. Baseline investigation like full blood count (FBC), renal profile (RP), liver function test (LFT), urine full and microscopic examination (UFEME) and viral serology were carried out. Patient was asked to get an early ultrasonography of the

hepato-biliary system (U/S HBS) and return the next day. He was given oral paracetamol 1g tds/prn and advice to return to the emergency department immediately if his condition further deteriorates.

He came quite early the next day for his appointment. Clinically he looked mildly lethargic. What triggered a red flag warning was when he complained of dizziness as well as preferring to lie down on the bed instead of sitting on the chair. His blood pressure was noted to be low (80/60 mm Hg) while his pulse rate was tachycardic at 110 bpm (beats per minutes). His perfusion was good. He was transfused one pint of Hartman Solution over one hour. At the same time, through clerking, it was noted that his symptoms to be about the same except for this new onset of dizziness and lethargy. Systemic examination was unremarkable which included normal cardiovascular and respiratory examination. His blood pressure after the transfusion improved to 124/74mmHg while his pulse rate reduced to 96 beats per minute.

Being in a primary care clinic attached to a tertiary hospital, the treating physician wanted to send him to the emergency department immediately, fearing further deterioration. However, the emergency department registrar insisted that the case be referred to the surgical medical officer on call and get an urgent ultrasonography of the abdomen (U/S abdomen) done first. Prioritising the patient and not wanting to argue further, the case was referred to both the radiology and surgical medical officers. The request for an urgent U/S abdomen was accepted while the surgical medical officer asked to be called back once the U/S abdomen is completed. Reviewing back to the blood and urine tests done the day before, it did not show any abnormalities.

He completed his abdominal ultrasound and returned soon. The radiologist who did his ultrasound noted a few serious and significant findings. This included pericardial effusion with a maximum thickness at apex measuring 2.5cm with the final impression of pericardial effusion and right pleural effusion. There was no anomaly of any of the abdominal organs. There was also a suggestion of cardiac tamponade, in this case, however the absence of distended jugular veins and muffled heart sounds made this diagnosis highly unlikely. This, in addition to the fact that the hypotension responded to the bolus fluid resuscitation done earlier.

Based on these findings, Mr. MZ was referred to the cardiologist who examined him in the primary care clinic

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and ordered him to be transferred to the emergency department for further management. Bedside echocardiogram at the emergency department showed pericardial effusion of 2.5cm. Since the patient was now clinically stable and having reassuring echocardiogram findings, the patient was given a follow-up at the cardiology clinic the next morning.

At the cardiology clinic the following morning, after being reviewed by a consultant cardiologist, Mr. MZ was immediately sent to the emergency department where an urgent pericardiocentesis under local anaesthesia and ultrasound guidance was performed. Haemo-serous fluid totaling 700 mls was drawn out of which cytology for malignant cells and examination for acid fast bacilli were later discovered to be negative.

For the past one month, he has been in and out of hospital which has significantly affected his quality of life and income. To supplement the household income, his wife is now selling traditional cakes at a stall. However, Mr. MZ is lucky as his family members are giving him good social support. Even his extended family, after knowing the severity of his condition, have been visiting him more often now.

To augment his multidisciplinary management which includes the primary care, respiratory and cardiology teams, he was also referred to a physiotherapist for daily cardiac rehabilitation and ENT team. Now comes the grim news. The ENT team reviewed him during one of the admissions and ordered urgent computed tomography (CT scan) of the brain, neck, thorax, abdomen, and pelvis. The CT scan, unfortunately, showed evidence of local recurrence with metastasis to the neck and axillary lymph nodes and bones, with intra-abdominal, intramuscular and subcutaneous nodules deposits with the recurring finding of bilateral pleural effusion and large pericardial effusion. The patient is currently awaiting for his oncology review along with multiple sub-speciality clinic reviews.

His prognosis is undeniably poor. Being the sole breadwinner, there will be an impact on the family finances and dynamics. His suffering is immense and heart-breaking. We the healthcare professional can only do our best to alleviate his physical pain and suffering along with providing much support and possible referral to palliative care if needed to alleviate his psycho-social trauma.

DISCUSSION

This case demonstrates the fact that patients with life-threatening illnesses may also present themselves to a primary care clinic which can stress both the physicians and the clinic system.¹ Vigilance, as well as thorough history and physical examination, is important in all circumstances. As mentioned in Murtagh's General Practice, serious illnesses constitute about 30% and 25% of all primary care consultations in Australia and USA, respectively.²

The presence of large pericardial effusion, i.e. with a size >2cm in diastole necessitate urgent pericardiocentesis to prevent the development of the fatal cardiac tamponade and haemodynamic collapse.³ Griva et al. and Basol have suggested the integration of palliative care early in the treatment of life threatening conditions that will help in providing quality end of life care and minimising the patients and their families discomfort.^{4,5}

CONCLUSION

This case reports about Mr. MZ who presented with a life-threatening illness of severe pericardial effusion which was duly recognised and therefore referral was made to relevant specialties.

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