

# Cardiac Tamponade and Intermittent Pancytopenia with a Rare Case of Addison's disease

To describe the first instance of intermittent pancytopenia and cardiac tamponade coexisting with autoimmune Addison's disease to our knowledge. A year-old woman attended on three separate occasions with a variety of symptoms. Her assessment revealed substantial pericardial effusion with cardiac tamponade and occasional pancytopenia white blood cell, haemoglobin, and platelets. The diagnosis of primary adrenal insufficiency brought about by AAD was confirmed by additional research, which included a morning blood cortisol level of 1027, an adrenocorticotropic hormone level of 1027, and positive 21-hydroxylase antibodies. Steroid therapy led to an immediate improvement in hemodynamic and normalisation of all blood cell lines. Diagnosis of AAD is frequently postponed or ignored. The most likely causes of pancytopenia in AAD are either marrow suppression during an acute illness, which is aggravated by hypoadrenalism, or perhaps a marrow response mediated by the autoimmune system. It has been reported that AAD can develop pericarditis and cardiac tamponade when polyglandular autoimmune syndrome type II is present [1]. The pericardium is autoimmune ally inflamed in the pathophysiology, which results in an initial inflammatory response and fast fluid buildup. Conclusion: Rare signs of an Addison lan crisis include intermittent neutropenia and pericarditis with cardiac tamponade [2]. The most frequent cause of primary adrenal insufficiency in industrialised nations is autoimmune Addison's disease, which can manifest itself in a variety of ways. We provide a case of a patient who showed signs of AAD in the form of cardiac tamponade and neutropenia [3]. According to our understanding, this is the first instance in which these two companies have been linked to AAD [4].

## Discussion

Case Study a female of 21 years old with a patient with recent travel to Cambodia, a history of postural orthostatic tachycardia syndrome, treated with fludrocortisone, and a one-week history of diarrhoea and vomiting presented to the emergency room of an outpatient clinic [5]. She was tachycardia, with a heart rate of 112 beats per minute, and hypotensive, with a blood pressure of 85/56 mmHg [6]. Her test results have been sent. She was hospitalised and given parenteral hydration and medication for her travellers' diarrhoea. She showed clinical improvement and was released without more research. With a 1-day history of weakness and postural instability, she appeared 25 days later [7]. She also reported back and chest pain that came with breathlessness. Her vitals were as follows upon presentation: 96 F body temperature, 110 bpm heart rate, and no more testing was carried out. In order to treat her acute pericarditis, she was sent home with a 3-month supply of colchicine and two weeks' worth of ibuprofen. Following discharge, a second full blood test revealed that her blood cell count in all three lineages had returned to normal [8]. The patient was asymptomatic for 3 months until returning with substernal chest discomfort that was worst when she was lying down. Her temperature, heart rate, and blood pressure

were all at bpm and 95/69 mmHg at the time of presentation [9]. A TTE once more revealed pericardial tamponade symptoms [10]. The 300 mL of serous fluid was evacuated through an emergency pericardiocentesis, which restored normal pericardial pressures and stabilised hemodynamic. Studies on the pericardial fluid ruled out infection and cancer. Further inspection revealed that her skin had been exposed to the sun. Hyper pigmented regions and oral mucosa were seen.

### Conclusion

Vitiligo had no traces, either. A white blood cell count of again showed pancytopenia in laboratory testing. Her laboratory tests were also notable for the following factors: a morning serum cortisol level of 0.6 mg/dL with a repeat level of 0.9 mg/dL, a sodium level of 132 mmol/L, a potassium level of 13 mmol/L with carbon dioxide, a chloride level of mmol/L, and a normal anion gap. She received emergency treatment with stress-dose glucocorticoids, and within hours she was able to wean herself off of intravenous vasopressor support as a result of a remarkable improvement in her clinical condition. A temporary exacerbation of her neutropenia (neutropenia/mL) worsened her treatment, and a bone marrow biopsy was done; it indicated 20% to 30% cellular marrow

#### Richard Femin\*

Department of Women's and Children's Health, University of Diponegoro, Indonesia \*Author for correspondence Richardfemin65@gmail.com

Received: 01-Dec-2022, Manuscript No. FMIM-22-83944; Editor assigned: 05-Dec-2022, Pre-QC No.FMIM-22-83944 (PQ); Reviewed: 19-Dec-2022, QC No. FMIM-22-83944; Revised: 24-Dec-2022, Manuscript No. FMIM-22-83944 (R); Published: 30-Dec-2022, DOI: 10.37532/1755with maturing trilineage haematopoiesis. Examination of Pancytopenia-specific reasons such as peripheral smear analysis and bone marrow biopsy were unsuccessful in determining whether the condition was caused by dietary, infectious, rheumatologic, or neoplastic factors. After receiving intravenous hydrocortisone for two days, her blood cell counts significantly increased. Clinically, she kept getting better, so her intravenous steroid was terminated, and 20 mg of prednisone and 0.1 mg of fludrocortisone were begun instead. Repeat TTE revealed that her pericardial effusion had disappeared. She had had two brief doses of steroids following her prior two hospitalizations, according to further information. The patient was healthy

enough to be released. She felt significantly better during the 3-week follow-up visit, and all of her blood cell lines and electrolytes had returned to normal. During her three talks, she illustrates the intermittent neutropenia pattern. Adrenocorticotropic-releasing hormone level dramatically increased again at, and a positive 21-hydroxylase antibody was found in her. Antibodies against thyroid peroxidase and ant glutamic decarboxylase were negative. She is now maintained on 25 mg of hydrocortisone and 0.1 mg of fludrocortisone daily as part of a tapering glucocorticoid regimen. Five months after being discharged, a second TTE revealed no recurrence of pericardial effusion.

### References

- 1. Michels A, Gottlieb P. Autoimmune polyglandular syndromes. *Nature Reviews Endocrinology*. 6, 270-277 (2010).
- Dittmar M, Kahaly GJ. Polyglandular autoimmune syndromes: immunogenetics and long-term follow-up. *J Clin Endocrinol Metab.* 88, 2983-2992 (2003).
- Eisenbarth GS, Gottlieb PA. Autoimmune polyendocrine syndromes. *New England Journal of Medicine*. 350, 2068-2079 (2004).
- 4. Arlt W The approach to the adult with

newly diagnosed adrenal insufficiency. *J Clin Endocrinol Metab.* 94, 1059-1067 (2009).

- Erichsen MM, Løvas K, Skinningsrud B et al. Clinical, immunological, and genetic features of autoimmune primary adrenal insufficiency: observations from a Norwegian registry. J Clin Endocrinol Metab. 94, 4882-4890 (2009).
- 6. Betterle C, Lazzarotto F, Presotto F et al. Autoimmune polyglandular syndrome Type 2: the tip of an iceberg? *Clin Immunol.* 137, 225-233 (2004).
- 7. Tsokos G Systemic lupus erythematosus.

N Engl J Med. 365, 2110-2121 (2011).

- Petri M, Orbai AM, Alarcón GS *et al.* Derivation and validation of the Systemic Lupus International Collaborating Clinics classification criteria for systemic lupus erythematosus. *Arthritis Rheumatol.* 64, 2677 (2012).
- Arroyo Ávila M, Vilá LM. Cardiac tamponade in a patient with mixed connective tissue disease. J Clin Rheumatol. 21 42-45 (2015).
- 10. LeWinter MM Acute pericarditis. N Engl J Med 371, 2410-2416 (2014).