

Comment

Since it first came into prominence legionnaires' disease has been mainly diagnosed retrospectively from the development of specific circulating antibody. Though the combination of pneumonia with other manifestations may permit a tentative diagnosis, sufficient to initiate treatment, laboratory confirmation early in the illness has been an urgent need. This recovery of the organism from blood and an increasing ability to recover it from bronchial aspirates or sputum indicates steady progress towards this objective.

We thank Dr W J Jeffcoate, consultant physician, City Hospital, Nottingham, for permission to report this case.

¹ Kirby, B D, et al, *Annals of Internal Medicine*, 1978, **89**, 297.

² Jenkins, P, et al, *British Journal of Diseases of the Chest*, 1979, **73**, 31.

³ Feeley, J C, et al, *Journal of Clinical Microbiology*, 1978, **8**, 320.

⁴ Greaves, P G, Sharp, F, and Macrae, A D, *Lancet*, 1979, **1**, 551.

⁵ Edelstein, P H, Meyer, R D, and Finegold, S M, *Lancet*, 1979, **1**, 750.

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Successful management of cardiac tamponade in two cases of leukaemia

Cardiac tamponade is an uncommon complication of leukaemia. We report the cases of a child with acute lymphoblastic leukaemia (ALL) and an adult with chronic myelomonocytic leukaemia (CMML) who developed this complication.

Case reports

(1) A 12-year-old boy was admitted to hospital with sudden onset of left-sided chest pain. He looked ill, anaemic, and preferred sitting in bed to lying. He had moderate hepatosplenomegaly and generalised lymphadenopathy, distant heart sounds, and the cardiac apex displaced to the left anterior axillary line. His haemoglobin was 6.9 g/dl, white cell count $130 \times 10^9/l$ ($130\ 000/mm^3$), and platelets $120 \times 10^9/l$ ($120\ 000/mm^3$). The blood film and bone marrow were diagnostic of ALL. Radiographs of chest and electrocardiograms suggested a pericardial effusion. Chemotherapy for ALL was started. Over the next four days he deteriorated with shortness of breath, a much raised jugular venous pressure (JVP), and pulsus paradoxus. Ultrasound studies confirmed incipient cardiac tamponade. Under cover of two units of

fresh frozen plasma and four units of platelet-rich plasma, because the prothrombin time was prolonged and the platelet count had dropped to $13 \times 10^9/l$ ($13\ 000/mm^3$), 500 ml of dark, blood-stained fluid was aspirated from the pericardium. After that he felt immediate relief of symptoms and a radiograph showed a smaller cardiac shadow. He was discharged 13 days after admission and survived a further 30 months.

(2) A 66-year-old man diagnosed five months previously as a case of CMML was admitted to hospital with a two-week history of shortness of breath, attacks of nocturnal dyspnoea, and fatigue. His pulse rate was 100/min with paradox, the JVP was raised to the angle of jaw, and he had hepatomegaly. His apex beat was not palpable and heart sounds were distant. A chest radiograph and ultrasound showed a large pericardial effusion with incipient tamponade. His haemoglobin was 10.5 g/dl, white cells $19.1 \times 10^9/l$ ($19\ 100/mm^3$), and platelets $70 \times 10^9/l$ ($70\ 000/mm^3$). Under cover of 12 units of platelet concentrates and four units of fresh frozen plasma the pericardium was opened and 900 ml of blood removed. Bleeding points were arrested and tissue for biopsy taken from an area suspicious of infiltrate. Symptomatic relief was dramatic and the JVP normal after six hours. He was transfused with four units of packed red cells and two units of fresh frozen plasma immediately after the operation. Six units platelet concentrates were given daily for three days and two tablets co-trimoxazole 12 hourly for two weeks. Recovery was uneventful and he was well and in full-time employment five months after discharge.

Comment

Although there are single reports of cardiac tamponade in acute leukaemia¹⁻⁴ we know of none of cardiac tamponade in CMML. Interestingly, only in Rab and Yee's case⁴ was the effusion distinctly haemorrhagic. Two different approaches were used in the management of our cases. An open operative evacuation of pericardial effusion has advantages in that clots may be removed, blood vessels supplying the bleeding area tied off, and tissue for biopsy taken from any infiltrated area. A recurrence of the haemopericardium is unlikely after open drainage owing to adhesions forming within the pericardial cavity. But in an acute leukaemia such a procedure might be too hazardous and a conservative standard needle aspiration seems to be more suitable. Many leukaemic patients may now have a prolonged survival. Such acute emergencies as cardiac tamponade should not in any way lessen the enthusiasm of the therapist.

We thank Drs C G Geary and D R Smith and Mr D R Walker for help in diagnosis and management in case 2.

¹ Battle, Constance N, Don Figlio, T A, and Miller, A R, *Journal of Pediatrics*, 1969, **75**, 692.

² Ghia, B L, DaCosta, J L, and Ransome, G A, *Thorax*, 1973, **28**, 657.

³ Wendkos, M H, *American Heart Journal*, 1941, **22**, 417.

⁴ Rab, S M, and Yee, A, *British Medical Journal*, 1967, **1**, 612.

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Vancouver style

All manuscripts submitted to the *BMJ* from now on should conform to the uniform requirements for manuscripts submitted to biomedical journals (known as the Vancouver style).

The *BMJ*, together with many other international biomedical journals, has agreed to accept articles prepared in accordance with the Vancouver style and will be introducing the system from January 1980. The style (described in full in *BMJ*, 24 February, p 532) is intended to standardise requirements for authors and covers text format, presentation of methods and results, use of SI units, and the form of tables and illustrations. All the participating journals have also agreed to introduce a standard form of references.

In future references to papers submitted to the *BMJ* should include: the names of all authors if there are fewer than seven or, if there are more, the first three followed by *et al*; the title of journal articles or book chapters; the titles of journals abbreviated

according to the style of *Index Medicus*; and the first and final page numbers of the article or chapter.

Examples of common forms of references are:

¹ International Steering Committee of Medical Editors. Uniform requirements for manuscripts submitted to biomedical journals. *Br Med J* 1979;1:532-5.

² Soter NA, Wasserman SI, Austen KF. Cold urticaria: release into the circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. *N Engl J Med* 1976;294:687-90.

³ Weinstein L, Swartz MN. Pathogenic properties of invading micro-organisms. In: Sodeman WA Jr, Sodeman WA, eds. *Pathologic physiology: mechanisms of disease*. Philadelphia: W B Saunders, 1974:457-72.

Up to the beginning of October some 100 journals had agreed to accept articles in the Vancouver style, and a full list will be printed early in 1980.