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HAEMATOLOGY IMAGES

Tuberculous pleurisy in an adult patient after cord blood transplantation

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A 63-year-old Japanese woman with advanced myelodysplastic syndrome received unrelated cord blood transplantation (CBT). A computed tomography scan on day 20 showed pleural effusion (PE) on the right lung (Figure 1A) after neutrophil engraftment on day 19. Following the improvement of grade III acute graft-versus-host disease (GVHD), which required corticosteroids, PE gradually had improved on day 99 (Figure 1B). However, the right PE progressed for approximately 4 months after CBT (Figure 1C). T-SPOT.*TB* was indeterminate on day 113, but turned positive on day 120 under corticosteroids. A pleural puncture on day 148 showed a hemorrhagic exudative PE, but Ziehl-Neelsen stain and the transcription-reverse transcription concerted reaction were negative. Subsequently, a pleural fluid specimen returned positive for growth of *Mycobacterium tuberculosis*.

The incidence of PE was 9.9% in 618 adult patients after allogeneic transplantation [1]. The most common cause of PE was infectious etiology, followed by volume overload and GVHD, but only one patient had *M. tuberculosis* [1]. Active tuberculosis after CBT is an uncommon infectious complication [2]. The repeated examination by T-SPOT.*TB* could have contributed to the diagnosis of tuberculous pleurisy in our case. Therefore, tuberculous pleurisy should be considered early after CBT for adult patients with a unilateral PE.

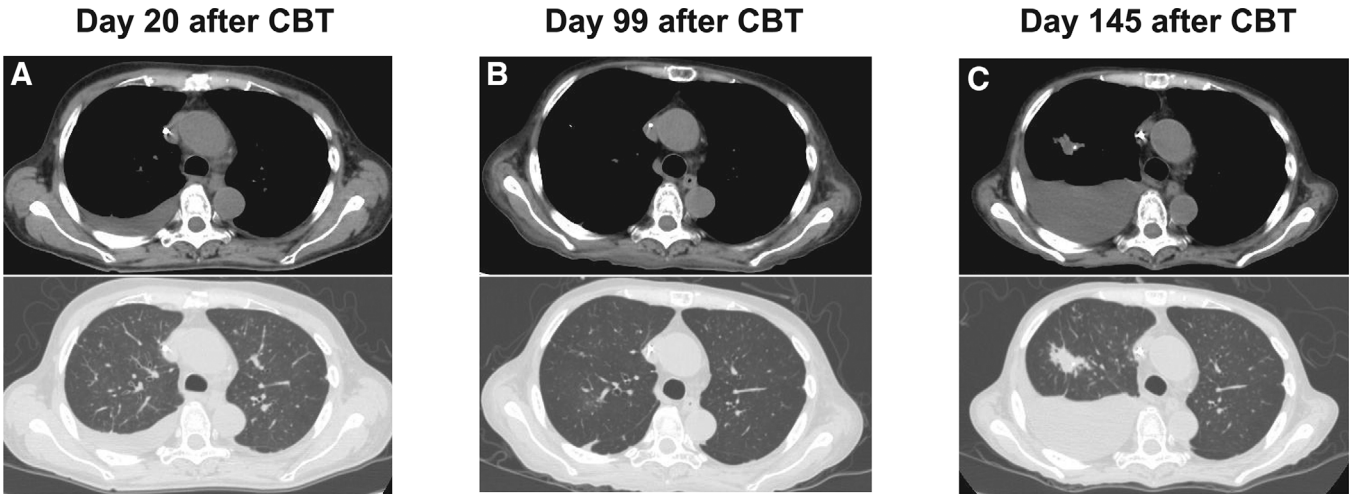

FIGURE 1 Unenhanced computed tomography scan showing right pleural effusion on day 20 (A), day 99 (B), and day 145 (C) after CBT. Upper: mediastinal condition, lower: lung field condition

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

All authors participated in the care of the patient. Takaaki Konuma wrote the first manuscript draft.

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