

# Unusual wound healing following suppurative BCG lymphadenitis

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## DESCRIPTION

BCG lymphadenitis, a complication sometimes associated with BCG vaccination, usually resolves spontaneously without treatment.<sup>1</sup> However, if suppurative BCG lymphadenitis develops, abscess formation and rupture can occur, leaving patients at risk for infections. Nevertheless, few studies have provided details on long-term wound-healing findings of patients following rupture.

We describe the case of an 8-month-old female infant who developed a left axillary mass following BCG vaccination. Medical examination revealed non-tender lymphadenopathy with swelling and erythema in her left axial area. We clinically diagnosed BCG lymphadenitis, and she was followed up without any specific medication. Nine months postvaccination, the mass spontaneously ruptured with residual necrotic material (figure 1A), which was removed by a plastic surgeon through a skin incision (figure 1B). The necrotic material was found to be contaminated by *Mycobacterium bovis* BCG str Tokyo 172, which was identified using a PCR test and sequence analysis. The examinations for immunodeficiency, including continuous granulomatosis, were negative. The wound closed naturally but subsequently developed irregular wart-like acrochordons (figure 1C). The

## Learning points

- ▶ The healing process associated with BCG lymphadenitis might be accompanied by the development of unusual wart-like acrochordons.
- ▶ To prevent the development of irregular scarring or keloids, an aspiration procedure should be performed in suppurative BCG lymphadenitis before rupture.
- ▶ With appropriate debridement after rupture, the wounds associated with suppurative lymphadenitis can be cured without medication.

wart-like scar gradually resolved over a 2-year period with non-pharmacological therapy (figure 1D).

It has been suggested that surgical incision and drainage for suppurative BCG lymphadenitis could cause significant irregular scarring or keloids over the scar on healing.<sup>2</sup> Therefore, in this case, the patient should have undergone needle aspiration earlier.<sup>1</sup> This case suggests that the healing process associated with BCG lymphadenitis might be accompanied by the development of strange wart-like acrochordons that can develop over a longer recovery period, which is different from usual paediatric suppurative lymphadenitis.<sup>3</sup> Moreover, in case of a rupture, conservative treatment remains a clinically relevant alternative in suppurative BCG lymphadenitis.

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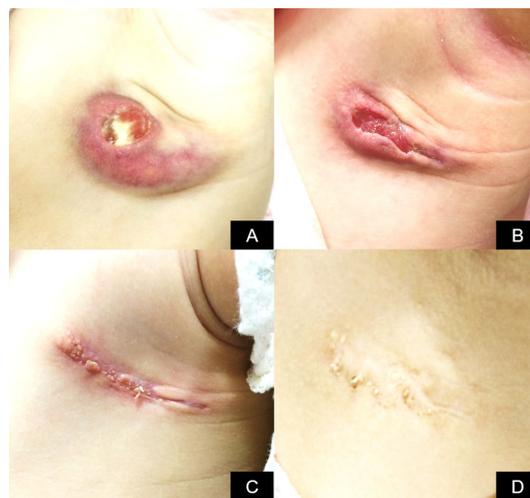
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## REFERENCES

- 1 Riordan A, Cole T, Broomfield C. Fifteen-minute consultation: bacillus calmette-guérin abscess and lymphadenitis. *Arch Dis Child Educ Pract Ed* 2014;99:87–9.
- 2 Chan WM, Kwan YW, Leung CW. Management of bacille calmette-guérin lymphadenitis. *HK J Paediatr* 2011;16:85–94.
- 3 Luu TM, Chevalier I, Gauthier M, et al. Acute adenitis in children: clinical course and factors predictive of surgical drainage. *J Paediatr Child Health* 2005;41:273–7.



**Figure 1** (A) Left axillary lymph node showing necrotic material after rupture. (B) Appearance of the left axillary lesion after a necrotomy through a partial skin incision. (C) Appearance of the wound 3 months after debridement. The wound is observed to have closed naturally but now shows the development of irregular wart-like acrochordons. (D) Appearance of the wound 2 years after debridement. The wart-like scar gradually resolved.

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