Local abscess due to BCGitis

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An eight-month-old girl was brought in because of increasing swelling in the area where the BCG vaccine was given. It was learned that the BCG vaccine was administered at the age of two months. Over time, there was swelling in the vaccination area and gradually increased. There was no consanguinity between mother and father. A sibling of the mother was lost at the age of one, for unknown reasons. The patient’s body temperature was normal. On examination, redness and fluctuating swelling with a diameter of about 3 cm was observed in the left deltoid region, where BCG vaccination was administered. Other physical examination findings of the patient were normal. The abscess drained spontaneously shortly after examination. Mycobacterium tuberculosis complex PCR was positive in the drainage material. The strain evaluated to be Mycobacterium bovis from the BCG vaccine was susceptible to isoniazid and rifampin. Lymphocyte subgroups, lymphocyte activation response, burst test and IL-12rβ1 expression were normal in the child with low serum IgG and IgM levels in immunological tests. Genetic study was planned in terms of other immunodeficiencies that predispose to mycobacterial diseases. The patient was started on isoniazid and rifampin treatment. The lesion of the patient, whose treatment was planned to be completed in six months, regressed in the follow-up.

BCG vaccine is a live attenuated vaccine administered intradermally. After the vaccine injection, a 5-6 mm papule forms at the application site and disappears in 20-30 minutes. There are no symptoms at the vaccination site for 3-4 weeks afterward. Then a slightly reddened nodule forms on the skin, and then it drains slightly. In about the second month, the crust forms, and after a few weeks, this crust also falls off, leaving a life-long scar at the injection site. Localized disease, also called BCGitis, or generalized BCGosis may be seen in immunocompromised individuals due to BCG vaccination. Local abscess due to BCGitis can be drained spontaneously or it can be drained surgically for purposes such as sampling for microbiological tests. Although the optimal treatment for BCGitis is controversial, patients should be investigated for immunodeficiency and treatment should be planned accordingly.