The significance of histopathologic patterns in positive tuberculin skin test site

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Abstract

Backgrounds: The histologic features of tuberculin skin test site is not uniform. It may be related to status of tuberculosis.

Methods: Forty-eight purified protein derivative (PPD) positive-cases were chosen for the study. Thirty of the subjects had active tuberculosis. As previously reported, the histologic pattern of inflammatory reaction seen in the test site classified into three type: (a) Perivascular (PV)-type, (b) Basal spongiotic dermatitis (BSD)-type and (c) Erythema multiforme (EM)-type. The frequencies of histological patterns in active tuberculosis and latent tuberculosis were statistically analyzed.

Results: In active tuberculosis group including 30 patient, 17 (56.7\%) EM-type, 9 (30\%) BSD-type and 4(13.3\%) PV-type inflammation were seen. Among 18 latent tuberculosis, there were 2 (11.1\%) EM-type, 7 (38 8\%) BSD-type and 9 (50\%) PV-type inflammatory reactions. The EM-type inflammation was more common in active tuberculosis group. Bulla formation was seen in seven subjects with active tuberculosis.
Conclusion: The histological pattern of PPD reaction site may be an important sign reflecting the nature of the tuberculosis, which may be either latent or active. The bulla formation is an important sign for active pulmonary tuberculosis. Further, detailed immunohistopathologic studies of PPD reaction with large number of cases may give important clues about tuberculosis immunology.