

## Original Article

DOTS AND TREATMENT RESULTS IN PATIENTS  
WITH EXTRA-PULMONARY TUBERCULOSIS IN OSAKA CITY

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**Abstract** [Purpose] To improve the treatment outcomes by analyzing/evaluating the association between DOTS and treatment outcomes in patients with extra-pulmonary tuberculosis.

[Methods] The subjects were patients with extra-pulmonary tuberculosis newly registered in Osaka City between 2012 and 2014. As controls, patients with pulmonary tuberculosis during this period were enrolled. Patients in whom compliance was confirmed once a month or more were regarded as completing DOTS.

[Results] There were 434 patients with extra-pulmonary tuberculosis. Treatment was completed in 73.3% of these patients. Defaulted rates accounted for 9.4%. The mortality rate was 13.4%. Treatment is being conducted in 2.8%. Furthermore, 0.7% was transferred out. The results were unclear in 0.5%. We investigated changes in the DOTS and defaulted rates, excluding patients who died, those who were referred to other hospitals, those receiving treatment, and those whose results were unclear. The DOTS rates in 2012, 2013, and 2014 were 85.5, 87.5, and 91.2%, respectively, showing a slight increase. The defaulted rates were 14.5, 10.7, and 7.8%, respectively, showing a decrease. When comparing the results between the extra-pulmonary and pulmonary tuberculosis patients, the defaulted rates were 11.4 and 6.2%, respectively; the percentage was significantly higher in the extra-pulmonary tuberculosis patients. The DOTS rates were 87.7 and 97.2%, respectively; the percentage was significantly lower in the extra-pulmonary tuberculosis patients.

There were 41 defaulted cases. The reasons were "side effects" in 41.5%, "physicians' instructions" in 24.4%, "self-discontinuation/refusal" in 22.0%, and "preferential treatment for other diseases" in 12.2%. In the extra-pulmonary tuberculosis patients, the proportion of those in whom "side effects" led to defaulted was higher than in the pulmonary tuberculosis patients, and that of those "self-discontinuation/refusal" was significantly lower.

[Conclusion] Although the defaulted rate has decreased with an increase in the DOTS rate in patients with extra-pulmonary tuberculosis, both the DOTS and defaulted rates were less favorable than in patients with pulmonary tuberculosis. In the future, it may be necessary to decrease the defaulted rate by intensifying DOTS. Of the reasons for defaulted, "side effects" and "physicians' instructions" accounted for a high percentage. Therefore, it may be important to provide medical institutions with information.

**Key words:** Extra-pulmonary tuberculosis, DOTS, Treatment outcome, Defaulted, Side effect, Pulmonary tuberculosis

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