

## Stage IVB cervical cancer: performance status and pretreatment WBC count are significant negative prognostic factors

Cervical cancer remains the second most common cancer among women worldwide and is a significant cause of cancer-related mortality in women. By the International Federation of Obstetrics and Gynecology (FIGO) classification, stage IVB cervical cancer is defined as a disease in which the tumor metastasizes to distant lymph nodes (LNs) or organs. This is a relatively rare condition, accounting for around 5% of all cervical neoplasms. The 5-year survival rate of patients with stage IVB disease ranges from 0 to 44%, and approximately 50% of these patients have a fatal outcome within 1 year. In Japan, 2.5-8.4% of patients with invasive cervical cancer are diagnosed with stage IVB disease. The 5-year survival rates for patients treated between 2001 and 2008 for this stage of cancer ranged from 17.0% to 24.7%.

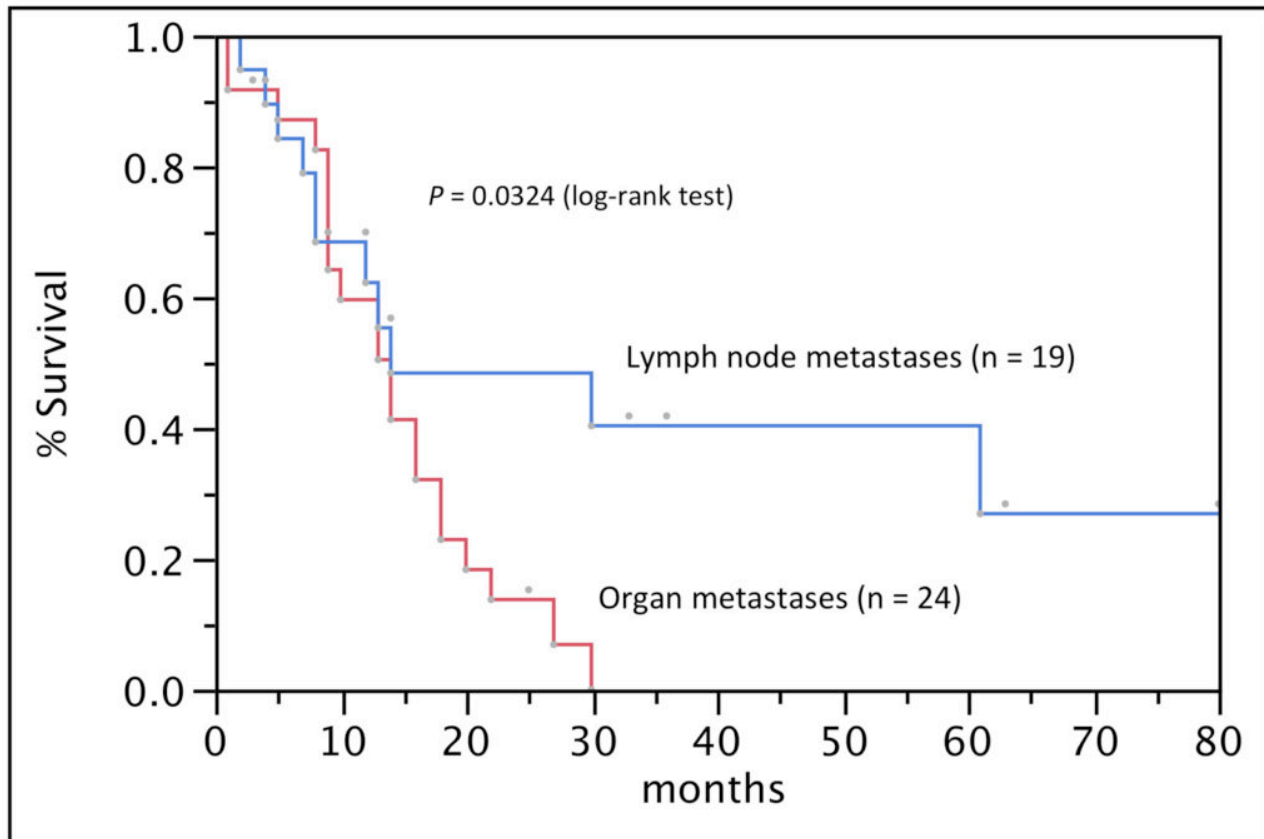


Fig. 1. Kaplan–Meier curve for overall survival (OS) in 43 patients with FIGO stage IVB cervical cancer without negative prognostic factors. The median OS and the 5-year OS rate were 14 months and 40.5%, respectively, in patients who had only lymph node metastasis, while they were 14 months and 0%, respectively, in patients who had distant organ metastasis.

There is no standard treatment for patients with stage IVB cervical cancer. Such a patient population is heterogeneous in nature, ranging from patients with metastasis confined to the LNs, such as supraclavicular, inguinal, or para-aortic LNs, to patients with multiple organ metastases. Treatment for patients with stage IVB cervical cancer varies according to the patient's symptoms and performance status, as well as the physician's preference. Without known superiority of a particular treatment method over methods, radiotherapy, chemotherapy, combination chemoradiotherapy, palliative treatment, and supportive care are considered as practical treatment options. Nevertheless, due to the rarity of this condition, only a few studies have reported on the treatment options for patients with stage IVB cervical cancer.

We report a retrospective evaluation for patients with stage IVB cervical cancer in order to identify survival rates and to improve our current practice. We analyzed 85 patients with stage IVB cervical cancer. For patients appropriate for radical treatment, a combination of external beam radiotherapy and intracavitary brachytherapy was delivered with/without chemotherapy. Patients with distant metastasis were treated using systemic chemotherapy or palliative radiotherapy. Forty-two patients were treated using radiotherapy alone, 31 using chemotherapy followed by radiotherapy, eight using chemotherapy alone, and four using best supportive care. The 5-year overall survival (OS) rate was 9.9%. Multivariate analysis revealed leukocytosis and a poor performance status were independent prognostic factors. Performance status is a global assessment of the actual level of function and ability for self-care of a patient with cancer. A recent study suggested that leukocytosis caused by tumor-derived granulocyte colony-stimulating factor stimulates tumor angiogenesis, inducing immune suppression and tumor progression in cervical cancer. Indeed, univariate and multivariate analyses carried out in our present study showed that an elevated white blood cell count is a significant predictor of poorer OS.

Of the 43 patients without these prognostic factors, patients with only LN metastasis had a 5-year OS rate of 40.5%. Performance status and leukocytosis are significant prognostic factors for patients with stage IVB cancer of the cervix. Radical treatment should be considered in patients who have only LN metastasis and are without these two risk factors, as this approach will lead to improvement in the survival rate.

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## Publication

[Prognostic Factors and Treatment Outcome for Patients with Stage IVB Cervical Cancer.](#)

Oishi S, Kudaka W, Toita T, Ariga T, Nakamoto T, Wakayama A, Nagai Y, Kaneshima I, Nishihira K, Aoki Y  
*Anticancer Res. 2016 Jul*