

Construction of prediction model of pelvic floor dysfunction after cervical cancer surgery

LI JUN LIU

Chongqing Red Cross Hospital (Jiangbei District People's Hospital)

Purpose

To construct and validate a predictive model of pelvic floor dysfunction (PFD) in patients with cervical cancer after surgery.

Method

From January 2021 to December 2023, we retrospectively collected 178 cases of cervical cancer patients admitted to our hospital, followed up with patients for 6 months after surgery, divided patients into PFD group (n=56) and control group (n=122) according to whether patients had PFD, compared the main clinical characteristics of the two groups of patients, and analyzed the risk factors of PFD in cervical cancer patients after surgery, and constructed and verified the prediction model of PFD in cervical cancer patients according to the relevant risk factors.

Result

There were significant statistical differences between the two groups in terms of age, surgical method, surgical resection range, and radiotherapy ($P < 0.05$). Age > 65 , open abdominal surgery, total hysterectomy, and radiotherapy were independent risk factors for postoperative pelvic floor dysfunction in patients with cervical cancer ($P < 0.05$). Using R4.0.3 statistical software, 125 cases were randomly selected as the training set, and the remaining 53 cases were selected as the verification set. The area under the receiver operating characteristic curve of the training set was 0.876 (95% confidence interval: 0.809-0.944), and the area under the receiver operating characteristic curve in the verification set was 0.798 (95% confidence interval: 0.675-0.920). The Hosmer-Lemeshow goodness-of-fit test of the model in the verification set had a chi-square value of 18.474 and a P value of 0.122, indicating that the model had good reliability.