

Expression of NLRP7 (PYPAF3) protein in endometrial cancer tissues

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Nucleotide-binding domain and leucine-rich repeat-containing family, pyrin domain-containing 7 (NLRP7) (pyrin-containing apoptotic protease activating factor-1-like protein 3; PYPAF3, NACHT domain-, leucine-rich repeat, and pyrin domain-containing 7; NALP7) has been thought to contribute to innate immunity and inflammation. Although expression of NLRP7 in human seminoma tissues and several cancer cell lines has been demonstrated, the pathophysiological and prognostic importance in cancer tissues has not been defined. In this study, a series of 70 endometrial cancer cases that had undergone curative resection was studied to determine the correlation between NLRP7 expression and clinico-pathological characteristics in human endometrial cancer tissue. Tissue specimens were evaluated for NLRP7 by immunohistochemistry. NLRP7 expression was positive in cancer cells in 7 cases (10%). There was a statistical relationship between the depth of tumor invasion and NLRP7 expression ($p=0.0326$). NLRP7 expression showed a trend for being associated with poor prognosis. Conclusion: Tumor-produced NLRP7, associated with myometrial invasion, might provide additional prognostic information in endometrial cancer patients.

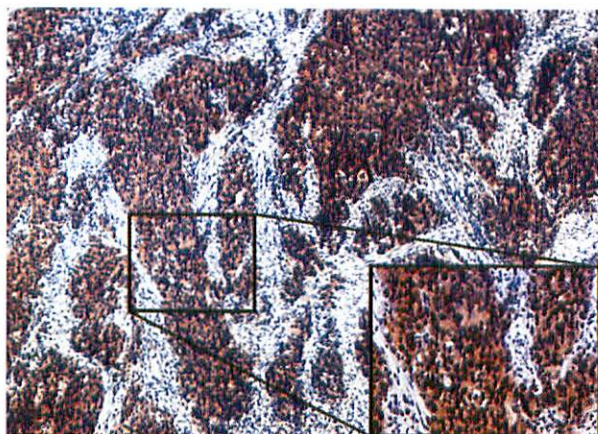


Figure 1. Representative sections of endometrial cancer with immunohistochemical staining of NLRP7. Strong cytoplasmic staining is observed in the invasion front of the tumor ($\times 40$; inset, $\times 200$).

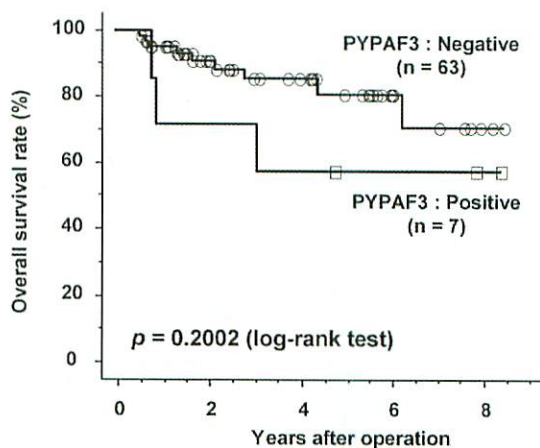


Figure 2. The Kaplan-Meier survival curves of 70 patients with endometrial carcinoma in relation to NLRP7 expression are shown.