AN ANALYSIS OF THE EXPRESSION OF ESTROGEN AND PROGESTERON RECEPTORS AND OF THE PROLIFERATIVE ANTIGENS, PCNA AND Ki67, IN UTERINE MYOMA CELLS AS RELATED TO THE PHASE OF THE MENSTRUAL CYCLE

RYSZARD ZASŁAWSKI¹, PAWEŁ SUROWIAK², PIOTR DZIEGIEL²
and MACIEJ ZABEL²,³

¹Ward of Obstetrics and Gynaecology, Voivodship Hospital, Legnica, Poland,
²Department of Histology and Embriology, Medical Academy, Wrocław, Poland,
³Department of Histology and Embriology, Medical Academy, Poznań, Poland

Uterine myomas belong to the group of hormone-dependent tumours. Hormonal therapy of the tumour using gonadoliberin analogues has recently become increasingly common. This study’s aim is an immunocytochemical comparison of the expression of receptors for estrogens (ER) and those for progesterone (PgR) and of the proliferative antigens, Ki67 and PCNA, in cells of uterine myomas in three groups of patients: those subjected to surgery in the follicular phase of the menstrual cycle (12 cases), those operated in the luteal phase (50 cases), and in post-menopausal women (27 cases). More accurate recognition of the effects of sex hormones on the myoma cell cycle may promote a better targeting of hormonal therapy. In all the studied groups, the expression of PgR was significantly higher than the expression of ER. Similarly, the average expression of the PCNA antigen in each of the examined groups was significantly higher than the expression of Ki67. Our studies also demonstrated that the expression of the studied antigens did not depend upon the phase of the menstrual cycle, and was also similar in the post-menopausal period.