

## **Evaluation of serum Prolactin and CA-125 levels as biomarkers for diagnosis of endometriosis**

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### **Abstract**

The aim of this study was to evaluate serum Prolactin and CA-125 levels as biomarkers for the diagnosis of endometriosis. A total of 97 patients were included. Study group was performed for 63 women with endometriosis submitted to laparoscopy as part of an infertility or pain investigation as well the control group was performed for 34 fertile patients submitted to lapararoscopy for tubal ligation without endometriosis. The sensitivity and specificity of endometriosis diagnosis were equivalent for Prolactin (21% and 99%) and for CA-125 (27% and 97%). Using these two markers in a parallel test utilizing the usual cutoffs (Prolactin 20.0 ng/ml and CA-125 35 U/I) the sensitivity and specificity were 44% and 99 %. However, by utilizing the best cutoffs (Prolactin 14.8 ng/ml and for CA-125 19.8 U/I), sensitivity and specificity were 77% and 88%. In conclusion, Prolactin is an equivalent biomarker for the diagnosis of endometriosis as CA-125; alone, these two markers have lowered sensitivity. However, we showed for the first time that the use of these two markers together, using adequate cutoffs (Prolactin 14.8 ng/ml and CA-125 19.8 U/I), allows the diagnosis of endometriosis with acceptable sensitivity and specificity.