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### **An analysis of development of nephropathy in ovarian cancer**

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**Objectives:** Cancer of female genital organs is one of the causes of obstructive hydronephrosis (1). The aim of this study is to find a predictive biomarker of the development of nephropathy (HDUN and cyst development) in ovarian cancer

**Methods:** In a retrospective study, we explored 123 cases of ovarian cancer for the development of nephropathy that was managed at our hospital. We tried to get a predictive biomarker for its development by using denominators pretherapy serum levels of HE4, CA125, stage of cancer as well as glomerular filtration rate (GFR) at presentation and recurrence. Mean values of serum levels of HE4 and CA125 were used.

Hematological parameters hemoglobin (Hb), total leukocytes count (TLC), and platelet counts were also analyzed

**Results:** We got 17 (13.8%) cases of ovarian cancer that developed nephropathy presenting as 12 (9.7%) cases of hydronephrosis (HDUN) and 5 (4%) cases of a simple cyst. CA125 was increased in 11/12 and 5/5 cases respectively. HE4 was increased in 11/12 cases of HDUN and 5/5 cases of the cyst. HDUN was found in the advanced stage (stage III & IV) in 11/15 (73.3%) of cases, the simple cyst was also seen more in an advanced stage, 4/5 (80%) of cases. Recurrence of ovarian cancer was seen in 8/12 (66.6%) cases with HDUN and 3/5 (60%) cases of the cyst. The average GFR was 93.61ml/min in HDUN and 84.5ml/min in cyst cases.

**Conclusions:** Development of nephropathy was associated more with the advanced stage of ovarian cancer. Recurrence was seen in 8/12 (66.6%) of cases with HDUN and 3/5 (60%) of cases with renal cyst. To find a predictive biomarker for the development of nephropathy needs a larger cohort, which I couldn't see in the available literature especially nephropathy in association with ovarian cancer.

Clinicopathological parameters associated with HDUN and cyst of kidney in ca ovary and their correlation