P1-IS-44 Diagnostic significance of serum superoxide dismutase activity in patients with cervical intraepithelial neoplasia and carcinoma cervix

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BACKGROUND: Superoxide dismutase (SOD) plays an important role in protecting body against carcinogenesis as an intrinsic antioxidant available at cellular level. The antioxidant defense system limits cell injury induced by reactive oxygen species. Oxidative stress occurs when there is an imbalance between the production of reactive oxygen species and cell oxidant capacity. This stress may cause mutagenesis and changes in gene expression leading to initiation or promotion of carcinogenesis. As cervical carcinoma is the most common genital cancer in female the role of SOD is vital in it.

OBJECTIVE: The study was conducted to investigate blood level of SOD in pre cancerous cervical lesions, in situ cervical carcinoma, and to use it as biomarker in these patients for early detection of the disease. Secondly, to find out its utility as a grading system which will be parallel to histopathological grade.

METHOD: Levels of the activity of antioxidant enzyme superoxide dismutase (SOD), was estimated in the blood of 58 Pap smear and histopathologically confirmed patients of cervical intraepithelial neoplasia (CIN) of all grade, 15 cervical carcinoma patients and 32 healthy age matched subjects as control. Data was compared with clinicopathological parameters and analyzed with student’s t-test. The sensitivity was determined.

RESULT: Significantly decreased activity of SOD was observed in blood of CIN and cervical carcinoma (p<0.01) patients as compared with healthy subjects. A steady decrease was observed in their activities from Grade I through Grade III as well as in advanced carcinoma. According to the stage of disease, the reduction in SOD activity in the patients was significant in those with early lesion, classified as Grade I (P<0.01), as compared to healthy individual but no significant difference was observed in between grades and those with Grade III and cervical carcinoma. The cut-off value of serum superoxide dismutase 0.56 U/mL has 85.5% sensitivity, specificity 64.5% and negative predictive value of 88.6%, for predicting the cervical cancer stage I.

CONCLUSION: These findings suggested that the reduction in serum SOD activity was detected in CIN patients and may be used as sensitive biomarker in early detection and treatment monitoring of cervical carcinoma along with other tests.

P1-IS-45 Intraoperative perfusion chemotherapy through the ovarian arteries gynecological carcinoma

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Objective: The objective of this study was to discuss a new way of interventional chemotherapy for gynecological malignant tumor – intraoperative perfusion chemotherapy through the ovarian arteries.

Methods: The chemotherapy group 88 patients consisting of ovarian cancer, cervical cancer and endometrial cancer, underwent surgery combined by intraoperative chemotherapy with injecting Fluorouracil (3-Fu) or Mitomycin (MMC) into the ovarian arteries. 88 corresponding operative patients were chosen in random as a contrast group in the same period.

Results: In the chemotherapy group the rate of nausea/vomiting was 84.1% and the whole utility rate of CA125 decrease was 82.8%. There was a clear different between two group (P<0.05). The average passing flatus time and postoperative morbidity of two teams had no significant difference (p>0.05). No one presented obviously leucopenia and postoperative infection.

Conclusion: Intraoperative perfusion chemotherapy through the ovarian arteries is an effective method to treat gynecological carcinoma.