구연-10

CA19-9 Is an Independent Prognostic factor for Locally Advanced Pancreatic Cancer Patients Treated with Chemoradiotherapy

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Aim: The aim of this study was to evaluate the prognostic factors that could expect long-term survival in LAPC patients treated with CRT.

Patients and Methods: From January 1995 to December 2007, 118 patients (70 men, 48 women; median age 62 years) with LAPC were treated with CRT in one tertiary institution. Seventeen patients (14.4%) received 5-FU based CRT, 17 patients (14.4%) received paclitaxel-based CRT, and 84 patients (71.2%) received gemcitabine-based CRT.

Results: One hundred patients (84.7%) completed the scheduled CRT. Eighteen patients (15.3%) showed therapeutic response (complete response plus partial response), 66 patients (55.9%) showed stable disease, and 34 patients (28.8%) showed progressive disease. After completion of CRT, 10.2% of patients could receive surgery. Median overall survival of all patients was 11.6 months (95% CI: 10.2-13.0 months). Among patient factors, univariate analysis revealed that younger age (<65 years), good performance (ECOG 0-1), abdominal pain, less weight loss (<5 Kg), and normal hemoglobin (≥11 g/dL) were good prognostic factors. Among tumor factors, tumors with N0 stage and low level of CA19-9 (<2,000 U/mL) showed good prognosis. Among treatment factor, completion of CRT, paclitaxel or gemcitabine-based CRT, therapeutic response, decrease of CA19-9 level, and operation after CRT were good prognostic factors. Multivaiate analysis revealed that good performance (ECOG 0-1), low level of CA19-9 (<2,000 U/mL), clinical response (CR+PR+SD), decrease of CA19-9 level (>30% drop), operation after CRT were independent good prognostic factors for LAPC patients treated with CRT.

Conclusions: Our study demonstrated that CRT showed good clinical response in LAPC and could give the patients a chance to receive curative surgery, which can expect long-term survival. Baseline CA19-9 itself was an independent prognostic factor and follow up of it after completion of CRT could predict long-term survivors in LAPC patients treated with CRT.

Key Words: pancreatic cancer, chemoradiotherapy, CA 19-9

구연-11

FOLFOX4 as a Rescue Chemotherapy in Gemcitabine Based Chemotherapy Refractory Pancreatic Cancer

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Aim: In advanced pancreatic cancer, gemcitabine based chemotherapy is the standard one. However, gemcitabine based chemotherapy showed at most marginal effects as the first line therapy. Furthermore, any regimens do not show a definite anti-tumoral effect in patients, refractory to gemcitabine based chemotherapy. The purpose of this study was to investigate the efficacy and safety of FOLFOX4 as a rescue therapy in patients with pancreatic cancer refractory to gemcitabine based chemotherapy.

Patients and Methods: The patients of pancreatic cancer who had failed gemcitabine based chemotherapy were eligible. FOLFOX4 was administered biweekly as follows: oxaliplatin, 85 mg/m^2 as a 2-h infusion on day 1; folinic acid, 200 mg/m^2/day as a 2-h infusion on days 1 and 2; 5-FU, bolus 400 mg/m^2/day and 5-FU, 600 mg/m^2/day as 22-h infusion on days 1 and 2. The treatment was planned to be continued until disease progression or death.

Results: Forty one patients were enrolled between July 2007 and August 2009, and received the median four cycles of chemotherapy with range of 1-16 cycles. Five partial responses (12.2%) and fourteen stable diseases (34.1%) were achieved. The objective tumor stabilization rate was 46.3%. The median time to progression was 11.86 weeks (95% CI; 5.523-18.191) and the median overall survival was 34.29 weeks (95% CI;25.621-42.951). The common toxicities of FOLFOX4 were hematologic ones; Grade 3, 4 neutropenia in 14 patients (36.9%), anemia in 6 patients (15.8%) and thrombocytopenia in 4 patients (10.5%). Grade 3, 4 neuropathy was in 5 patients (13.2%).

Conclusions: FOLFOX4 seems to be effective as a rescue therapy in advanced pancreatic cancer refractory to gemcitabine based chemotherapy.

Key Words: Pancreatic cancer, second line chemotherapy, FOLFOX4

구연-12

수술적 절제가 불가능한 췌장암에 대한 항암요법 시행 후 2년 이상 생존한 환자들에 대한 임상적 고찰

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목적: 췌장암으로 진단받는 환자의 약 80%는 수술적 절제가 불가능하며, 생존기간은 약 6개월 정도로 알려져 있다. Gemcitabine을 근간으로 하는 항암화학요법으로 이들 환자의 생존기간이 다소 연장되었으나, 그 정도는 아직은 미비한 실정이다. 저자들은 절제 불가능한 췌장암에 대한 항암화학요법 개시 후 2년 이상 생존한 환자들의 경과를 살펴보고 임상적 특징을 고찰해 보고자 하였다.

대상 및 방법: 2001년 1월부터 2006년 12월까지 서울대학교병원에서 조직학적 확진으로 진단된 췌장암 환자들 중 절제 불가능한 병기로 항암화학요법 또는 항암방사선요법을 시행받은 181명의 환자들을 대상으로 한 후향적 연구를 시행하였다.

결과: 181명의 환자 중 항암화학요법 개시 후 2년 이상 생존한 환자는 11명으로 평균연령은 62세(44–73), 조직진단 후 평균 생존기간은 32.1개월(24.4–62.9)이었다. 조직진단 결과 한 명의 환자가 미분화 암이었고, 나머지 10명의 환자는 관형 선암이었다. 원발성 종괴의 위치는 체부 또는 미부에 위치한 환자가 6명, 두부에 위치한 환자가 5명이었다. 이들 모두 내원 당시 황달은 없었고, 5명의 환자에서 CA 19–9 수치가 정상범위였다. 상장간막 동맥이나 복강동맥으로의 침범 소견을 보인 환자는 5명, 원격전이 소견을 보인 환자는 6명이었다. 나머지 170명의 환자 중 이들 11명의 환자와 나이와 성별을 짝지은 22명의 환자(평균 생존기간 12.5개월)를 대조군으로 설정하여 시행한 비교 연구 결과, 초기 증상 및 CA19–9 수치, 종괴의 위치 및 크기, 조직진단, 병기 모두 양 군간에 유의한 차이가 관찰되지 않았다. 이들 33명의 환자들 모두 1차 치료로 Gemcitabine을 근간으로 하는 항암화학요법을 시행 받았는데, 2년 이상 생존자 11명에서 1차 치료 기간이 높은 경향을 보였다(10.2 vs. 4.4개월, p=0.086). 2년 이상 생존자 11명 모두 2차 치료를 시행 받았는데, 5명은 5–FU 또는 Capecitabine 단독 요법을, 3명은 Capecitabine과 병합한 항암화학방사선요법을 시행 받았다. 3차 치료를 시행 받은 환자는 4명으로 1명은 Capecitabine과 병합한 항암화학방사선요법을, 3명은 각각 5–FU, Gemcitabine, TS–1 단독 항암화학요법을 시행받았다. 2차 및 3차 치료의 평균 치료 기간은 각각 7.5개월, 3.4개월이었다.

결론: 적은 빈도이지만 다양한 치료 양식을 통한 장기간의 생존 연장이 가능한 증례를 확인할 수가 있었다. 이러한 장기간의 생존과 관련된, 즉, 예후에 영향을 미치는 임상적 인자를 규명하기 위해서는 보다 다수의 환자를 대상으로 하는 다기관에서의 비교 연구가 필요할 것으로 생각된다.

Key Words: 췌장암, 항암화학요법, 생존기간

구연-13

Clinical Usefulness of CD44 as a Chemotherapeutic Marker in Pancreatobiliary Cancer

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Aim: Resistance to chemotherapy in solid cancers is one of the most important clinical problems. CD44 is a cell surface antigen known as a cancer stem cell marker, and its expression is associated with poor survival in several cancers. The aim of this study was to evaluate the usefulness of serum CD44 levels as a chemotherapeutic marker during chemotherapy.

Patients and Methods: From 2005 to 2009, 27 patients treated with pancreatic cancer or bile duct cancer at Yonsei University College of Medicine, Seoul, Korea were included. We collected the patients' blood sample at the time of diagnosis and during chemotherapy until disease progression of cancer. Then, CD44 levels in serum was analyzed by ELISA (Enzyme-linked Immuno Sorbent Assay) using a commercial kit from Abcam Inc.

Results: Among 27 patients, 13 patients were diagnosed with bile duct cancers including GB cancer. 14 patients were pancreatic cancers. Mean age was 64.0±9.1 years (range: 39-76 years). Mean CD44 level at diagnosis was significantly higher in bile duct cancer than in pancreatic cancer (5.6±2.1 vs 3.4±1.0 ng/ml) (p=0.003). Median overall survival was 10.6 months (95% CI: 6.0-15.2 months). The prognostic factor for poor survival was associated with high final CD44 levels (>5 ng/ml) after chemotherapy at the time of disease progression (OR: 3.04, 95% CI: 1.01-9.10) (p=0.047). Mean change rates for CD44 level (%) from diagnosis to cancer progression [(CD44 at PD-CD44 at diagnosis)*100/(CD44 at diagnosis)] tended to be higher in patients with poor chemotherapeutic response, defined as cases in which cancer progression was identified before the 2nd cycles of chemotherapy (45.7% vs 22.2%, p=0.125).

Conclusions: Patients with bile duct cancer showed lower survival rates and much higher CD44 levels at diagnosis compared to pancreatic cancer patients. Final CD44 levels at the time of disease progression were also related to poor survival rates of pancreatobiliary cancer.

Key Words: Pancreatobiliary cancer, CD44, Chemotherapeutic marker