Cukurova Medical Journal
ÇUKUROVA ÜNİVERSİTESİ TIP FAKÜLTESİ

Cukurova Med J 2018;43(Suppl 1):339-340
DOI: 10.17826/cumj.447116

EDİTÖRE MEKTUP / LETTER TO THE EDITOR

Acute pancreatitis during craniospinal radiotherapy in a patient with medulloblastoma

Medulloblastomlu bir hastada kraniyospinal radyoterapi sırasında görülen akut pankreatit

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Cukurova Medical Journal 2018;43(Suppl 1):339-340

To the Editor,

Craniospinal radiotherapy (CSR) comprising the irradiation of brain and spinal cord is an essential part of the treatment for medulloblastoma. Pancreatic dysfunction is rarely described due to toxicity of chemotherapy or radiotherapy[1]. In the present paper a 10-year-old boy with medulloblastoma presenting with acute pancreatitis during CSR is reported.

The child was managed as a standart-risk posterior fossa medulloblastoma (age> 3 years, without residual mass after operation, without spinal or hematogenous metastasis) followed by gross resection. Treatment was scheduled with conformal radiotherapy, that is planned to be delivered 3600 cGy in 20 fractions of 180 cGy each, for whole cranium with boost dose of 1980 cGy for posterior fossa, and 3600 cGy in 20 fractions of 180 cGy each, for spinal cord. On 20th day during radiotherapy, the child presented with nausea, vomitting and abdominal pain. Physical examination was normal and exocrine pancreatic dysfunction was demonstrated by a high level of pancreatic serum enzymes. Amylase level at the time of presentation was 923 U/L (normal ranges: 28-100 U/L) and lipase 55 U/L (normal ranges: 22-51 U/L). Complete blood count, urinalysis and serum biochemistry including glucose levels were unremarkable. Abdominal ultrasound showed bilateral calyceal fullnes. Pancreatic magnetic resonance imaging did not show any canalicular abnormalities. The child was treated with porcine pancreatic extracts with improvement of his symptoms. On 5th day of hospitalization serum amylase and lipase levels were found in normal ranges (130 and 30 U/L respectively), and radiotherapy was resumed thereafter. After completion of radiotherapy, a chemotherapy protocol consisting of vincristine, etoposide, carboplatin and cyclophosphamide was started. At 3 months of follow-up, the patient remained alive, with no evidence of disease, and free of digestive symptoms under pancreatic extracts.

In animal models only delayed type of exocrine pancreatic dysfunction has been reported after intraoperative irradiation of the pancreas[2]. Chronic pancreatitis associated with previous radiotherapy was reported rarely in children[3,4]. Our case is unique in that, he experienced pancreatic dysfunction during radiotherapy. Since he did not take chemotherapy and/or corticosteroid we could eliminate the role of toxicity owing to chemotherapeutic drugs or corticosteroids. In a brief report by Huang et al., a debatable case with medulloblastoma is described among 14 patients during CSR in supine position. The child in their report was admitted for the treatment of hematemesis that was found to be owing to a Mallory-Weiss tear and acute pancreatitis[5]. Details of

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Geliş tarihi/Received: 24.7.2017 Kabul tarihi/Accepted: 26.8.2017 Published online: 25.9.2018

the clinical characteristics are missing in their report.

In conclusion, experience with the present case suggests that, exocrine pancretic functions are sensitive to radiation injury. During CSR pancreas should be considered as an organ at risk. Pancreatic functions should also be followed-up in suspected cases during CSR.

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