کارکاه های آموزشی مرکز اطلاعات علمی جهاد دانشگاهی

کارکاه آنلاین بررسی مقایسه ای منحنی (مقدماتی)

کارکاه آنلاین برپوشال نویسی و پایان نامه نویسی

PROPOSAL
پروپوزال

كارکاه آنلاین آشنایی با پایگاه های اطلاعات علمی بین المللی و ترفند های جستجو

قسمت های دیگر

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فیلم های آموزشی
Fatty Liver, A Post-mortem Study

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Abstract

Background: There are many reports on fatty liver of the patients with abnormal liver function test of unknown cause but up to the knowledge of author, no post-mortem study is done on fatty liver.

Objective: The investigation was performed to observe fatty liver in patients who died of different medical causes.

Methods: In 570 patients, 354 males and 216 females who died during years 1991-2000 at internal medicine department, Taleghani hospital, Tehran, post-mortem evaluation was done. After preparation of tissue, microscopic examination showed 47 cases of fatty liver. Their medical history, physical findings and liver function tests were reviewed.

Results: of 47 cases, 19(40%) were male and 28(60%) were female. Mild elevation of transaminase was seen in 24%, moderate increase in 18% and marked elevation in 13%.

Conclusions: prevalence of fatty liver in the patients who died was 10%, 55% of whom had abnormal liver function test. One should think of hepatic steatonecrosis and consider the dosage of medicines with hepatic metabolism in such end stage cases.

Key words: Fatty liver, post-mortem

Introduction

Fatty liver is a focal or diffuse infiltration of triglyceride and fatty acid or less commonly cholesterol ester and phospholipid in liver. In microvesicular type the nucleus is in the center of hepatocyte but in macrovesicular type the nucleus is in the periphery of the cells. The fat amount exceeds 5% of the total weight or more than 30% of liver cells in a hepatic lobule are with fat deposit.³

On ultrasonography any patients having bright liver kidney contrast, vascular blushing and deep attenuation is diagnosed as suffering fatty liver.

Recently echo MRI provides an accurate and more rapid means of assessing hepatic fat contents.² Steatosis may be differentiated from steatohepatitis or cirrhosis only with biopsy.⁵

In this report my experience with fatty liver in moribund patients who eventually died of different diseases in medical ward is presented.

Patients and Methods

During a 10-year period, from 1991 to 2000 for all 570 patients who died at medical ward a liver necropsy was done in 1-6 hours after death with Trucut needle. Tissues were fixed in formalin, mounted in paraffin, sectioned and stained with hematoxyline eosine.

Clinical Data

Family history of liver disease, diabetes mellitus, hyperlipidemia, weight and length for body mass index and alcohol consumption were evaluated.

Laboratory data

Liver function tests were studied from the files. HBV, HCV serology, cholesterol, triglyceride and blood sugar were also reviewed.

Liver histology

Liver necropsies reviewed by pathologist for fat vacuole and looked for microvesicular fatty liver if the droplet of fat was small and nucleus was in the center of cell, and macrovesicular fatty liver if the droplet was large and the nucleus pushed to periphery of cell.

Results

Clinical aspects

Of 570 necropsies (354 males 216 females) 47 cases had fatty liver, 19 cases (40%) were male and 28 (60%) were female.

Laboratory data

Mild elevation of transaminase was found in 24%, moderate elevation in 18% and marked elevation in 13%.

Liver histology

25% had macrovesicular, 30% microvesicular and 45% mixed fatty liver. Table shows different types of fatty liver and associated diseases.

Discussion

In patients with mild to moderate acute fatty liver disease, the daily alcohol consumption appears to be decisive, mortality is high and patients surviving the acute phase often develop cirrhosis irrespective of their further drinking habit. Steroid may prevent progression of acute fatty liver disease to cirrhosis.⁶ In this study, only one patient was alcoholic. Non-alcoholic steatohepatitis is very often associated with insulin resistant diabetes mellitus. Fat accumulation seems to be an important first step in the pathogenesis of non-alcoholic fatty liver disease. Free fatty acid, iron and

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other sources of oxidation stress probably result in cell damage. In some patients, these events result in necro-inflammation mediated by various cytokines and immunoreactive cells. Prognosis in pure steatosis is usually good. Presence of necroinflammation or fibrosis indicates risk of progressive liver disease including cirrhosis. Phelebotomy by decreasing hepatic iron may be effective.² In this study, eight patients were diabetic. No effective therapy currently exists for patients with nonalcoholic fatty liver disease and the effect of betamethasone or other modes of therapy is controversial.³ In those with obesity only weight reduction has proved effective.⁴ In this study, four patients were obese with body mass index more than 26 but fifteen patients were cachectic with body mass index less than 19. Trauma induces hypermetabolic responses that are characterized by mobilization of fat soluble substances. The marked increase of peripheral lipolysis after burn can lead to development of fatty liver.⁵ In this study one patient was died of severs burn. This study showed that the most common conditions leading to acute fatty liver are cachexia history of taking hepatotoxic drugs, diabetes mellitus and malignant disorders, therefore it is nice to consider the dosage of drugs that are metabolized in liver in such patients.

Table: Type of fatty liver and associated diseases

<table>
<thead>
<tr>
<th>Total</th>
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<th>Burn</th>
<th>Poison</th>
<th>Obesity</th>
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<th>Metabolism</th>
<th>Carbohydrate</th>
<th>Steroid</th>
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<th>Malignancy</th>
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<td>5</td>
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<td>Micro and Macrovesicular</td>
</tr>
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</table>

Acknowledgement
I am indebted to Mr. M. Jazani for his kind general support.

References
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Further reading

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